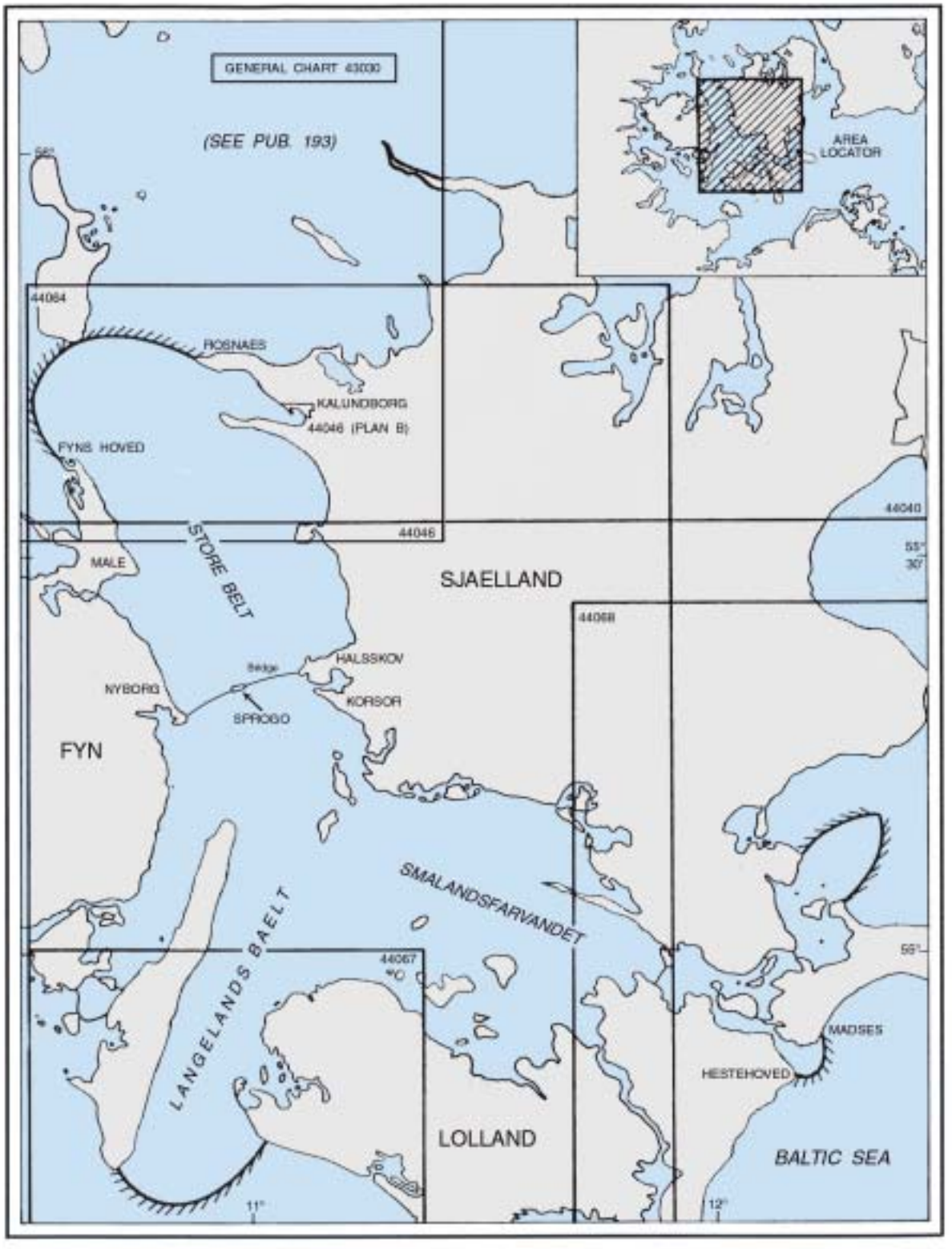

GENERAL CHART 43000
(SEE PUB. 193)
AREA LOCATOR
56°
44064
ROSNAES
KALUNDBORG
44046 (PLAN B)
FYNS HOVED
44040
44046
STORE BELT
MALE
SJAELLAND
55° 30'
44068
HALSSKOV
Bridge
NYBORG
KORSOR
SPROGO
FYN
SMALANDSFARVANDET
LANGELANDS BAELT
44067
59°
MADSES
HESTEHOVED
LOLLAND
BALTIC SEA
11°
12°

Table of Contents

SECTOR 2

DENMARK—STORE BAELT AND SMALANDSFARVANDET

Plan.—This sector begins with a description of the N part of the Store Baelt lying between Rosnaes (55˚45'N., 10˚52'E.) and Sprogo (55˚20'N., 10˚58'E.). The dangers lying in the triangle formed by the SE extremity of Samso (55˚46'N., 10˚37'E.), Rosnaes, and Fyn Hoved (55˚37'N., 10˚35'E.) are described first. The central part of the Store Baelt is then described; continuing S to Omo (55˚10'N., 11˚10'E.) on the E side and to Hov (55˚10'N., 10˚56'E.) and Stokkebaek Flak (55˚10'N., 10˚50'E.) on the W side.

The sector concludes with a description of the S end of the Store Baelt. First the W section, which includes the passage lying between Fyn and Langeland as far as Rudkoping (54˚56'N., 10˚43'E.), and then the E section, which includes Smalandsfarvandet and the passage lying between Langeland and Lolland.

General Remarks

2.1 Store Baelt (55˚30'N., 10˚55'E.), which is also known as the Great Belt, is the center of the three passages connecting the Kattegat to the Baltic Sea. It is the widest and deepest of the three passages and, therefore, the most suitable for deep-draft vessels.

The channel passes between Sjaelland and Lolland, on the E side, and Fyn and Langeland, on the W side. It is bounded at the N end by a line joining Rosnaes (55˚45'N., 10˚52'E.) and Fyns Hoved (55˚37'N., 10˚35'E.) and at the S end by a line joining Kappel Church (54˚46'N., 11˚02'E.), on Lolland, and the S extremity of Langeland (54˚44'N., 10˚42'E.).

Sprogo, an island, lies 25 miles S of Rosnaes and divides Store Baelt into two passages, Osterrenden on the E side and Vesterrenden on the W.

Store-Baelt Link (55˚19'N., 11˚00'E.) is a major tunnel/bridge connecting Sjaelland with Fyn via Sprogo. The W section spanning Vesterrenden is formed by a low-level bridge and the E section spanning Osterrenden is formed by a high suspension bridge (see paragraph 2.11).

The W part of the S section of Store Baelt lies between Fyn and Langeland. Channels leading to Svendborg and Rudkobing extend from the S end of this part.

Smalandsfarvandet is the inlet lying between Sjaelland, on its N side, and Lolland and Falster, on the S side. It connects Store Baelt with the Baltic Sea via Gronsund, Guldborg, and Bogestrom.

Langelands Baelt is the E part of the S section of Store Baelt. It lies between the E side of Langeland and the W side of Lolland.

The bottom characteristic in the Store Baelt is mainly clay, which is covered in some places by a thin layer of rather fine sand or occasionally gravel. This layer usually increases in depth as the shore is approached. On many of the shoals, there is a considerable amount of rock imbedded in the clay.

Close to shore there is frequently a belt of clean white sand with grass. The amount of grass increases farther offshore and is gradually replaced by weed. The holding ground is good in nearly all parts of Store Baelt, but the nature of the bottom does not afford much information for determining position by the use of soundings.

Ice.—The formation of ice in Store Baelt frequently follows the freezing over of Smalandsfarvandet. Ice in the passages lying E and W of Sprogo is nearly always still. The ice in Nyborg Fjord and in the passage between Langeland and Fyn remains longer than that in other parts of Store Baelt. When the ice in the W part of the Baltic Sea breaks up, large masses of it often drift N through Store Baelt.

Mariners should pay particular attention to the refraction and deflection of light sector projections caused by ice during the cold season. Where an angle of uncertainty exists, a frequent check must be made to determine whether the vessel is keeping on the desired course by the use of additional aids to navigation.

Icebreaking services in the region are provided under a cooperative agreement between Sweden, Denmark, Finland, and Norway, with the purpose of having identical regulations. Requests for assistance should be made direct to the icebreaker, if close, or to the State Ice Service through any coastal radio station.

For additional information on icebreaker services, regulations, and related subjects, see Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea (Sweden).

Danish icebreakers can be contacted on VHF channel 16 or through Lyngby coastal radio station. The Danish State Ice Service (Arhus) can be contacted by E-mail at bk4@sok.dk. The Swedish State Ice Service (Norrkoping) can be contacted by E-mail at opc@sjofartsverket.se.

Tides—Currents.—The tidal range in Store Baelt is negligible. However, fluctuations in sea level result from changes in wind force and direction.

Because of the variable nature of the currents in Store Baelt, it is impossible to predict with certainty the direction in which they will set. A S flowing current is prevalent only when the wind is between W and NNE. Winds from NW nearly always cause a strong S current. A N flowing current is caused by winds from between NNE, through E and S, and WSW.

Although the N flowing current predominates, it seldom occupies the whole width of Store Baelt. At times, the current flows N on one side and S on the other side. At other times, there is a N flowing current on each side of the passage and a S flowing current of varying width between them. The adjacent edges of these opposing currents are indicated by rips, and are frequently marked by foam and seaweed; they are not constant, but depend on the velocities of the currents, the difference in water level on the opposite shores, and other factors.

The direction of the current is determined to a considerable extent by local conditions, but it is not constant at any given place. The current, either flowing N or S, sets in a different direction after it has been running for some time, even though conditions appear unchanged. After running for about 12

Table of Contents

hours, the main current usually follows the direction of Dybe Rende, the deep channel.

Irregularities of the bottom and other local conditions may deflect the current in places, and undercurrents are also causes of diversion. An example of local conditions is the tidal current, which sets through the harbor entrance at Korsor. This action deflects the main current in Store Baelt well outside the harbor and beyond Halsskov Rev.

The larger irregularities of the bottom in Store Baelt are usually indicated by overfalls, which frequently appear on the side of a shoal opposite to that toward which the current is setting. These overfalls, which should not be confused with the previously-mentioned rips, sometimes give warning of underwater dangers, but they may also occur in the deeper parts of the fairway as, for instance, in places where the depths decrease abruptly from about 29 to 14m.

The velocity of the current depends on the width and depth of the fairway; it is also affected to some extent by the tidal currents. In the narrower and deeper parts of the fairway, the velocity increases, and it is greatest in Dybe Rende. A danger to be guarded against is the possible increase in the velocity near detached shoals and reefs, over which the direction of the current may vary according to the formation of the bottom. Even in calm weather and under apparently settled conditions, the rate of the current in Store Baelt may be as much as 3 knots.

The S flowing current is the stronger in Vesterrenden and the N flowing current is the stronger in Osterrenden. In places where the coastal banks are steep-to, both currents produce countercurrents which can be utilized by vessels having local knowledge. The strongest countercurrents are along the coast of Fyn between Kerteminde Bugt and Knudshoved, and, especially with a N flowing current, along the coast of Langeland between Tranekaer and Gulstav. The E side of the latter countercurrent is frequently marked by strong rips. Along the W coast of Lolland there is a fairly strong countercurrent that extends offshore to a depth of about 7m.

From the N entrance of Store Baelt, the S flowing current follows the direction of the fairway SSE and passes on both sides of Elefantgrund. The greater part of the W branch passes between Elefantgrund and Romso, and then sets S toward Vesterrenden, where it is divided by Sprogo, one part setting S on the W side of Osterrenden and the other setting through Vesterrenden. Another part of the current W of Elefantgrund sets through the passage between Romso and Fyn, across Kerteminde Bugt outside a depth of about 16m, and then follows the Fyn coast outside the 10m curve to Knudshoved; only a small portion of this part of the current sets along the shores of Kerteminde Bugt.

After the current from the N entrance of Store Baelt bifurcates at Elefantgrund, the E branch passes between that shoal and Lysegrund and then sets S to Osterrenden, passing close W of Musholm and then toward the NW side of Halsskov, off which it turns SW and rounds Halsskov Rev.

The current W of Sprogo keeps mainly to the W side of Vesterrenden and sets from Knudshoved toward Vresen Puller, where it divides. A weak branch passes between Vresen and Fyn and extends as far S as Thuro; with strong W winds a portion of this current sets E through Kobberdyb. Strong NE and E winds cause large quantities of the water passing through Vesterrenden to be forced into the passage between Fyn and Langeland. The main part of the current through Vesterrenden passes E of Vresen Puller and sets across Broen, where it is influenced to a considerable extent by the wind. Strong W winds force the water from Vesterrenden so far E that the current crosses the entire width of Broen to the W side of Vengeancegrund, from which it sets toward the flats bordering the W side of Omo and then continues S.

A branch of the current which sets around Halsskov Rev passes through Agerso Sund; the remainder of this current sets along the W sides of Agerso and Omo. The current from Osterrenden sets through the narrow channel between Vengeancegrund and Agerso Flak, and then passes the flats extending from the W side of Omo. With strong NE and E winds, this current passes some distance W of Omo.

To the S of Broen, the combined current follows the general direction of the fairway, attaining its greatest velocity in Dybe Rende. The comparatively shallower portions of the bottom in Dybe Rende cause the current to divide as it sets across them.

In general, the N current through Store Baelt, like the S current, follows the direction of the fairway. It sets toward Naebberevler, on the E side of Langeland, with considerable strength. It crosses Broen in a N direction, its W portion passing close to Hov Sand, E of Vresen, and through Vesterrenden. The current across the central part of Broen sets directly toward Sprogo, but S of that island it is divided by Gaellegrund into two branches which pass respectively E and W of Sprogo. As the N current passes across Broen its direction is affected by strong winds in the same manner as the direction of the S current.

Between Fyn and Langeland there is a weak N current which passes W of Vresen and continues N to a junction with the current setting through Vesterrenden off Knudshoved. The E portion of the N current crosses the flats W of Omo and passes through the channel between Agerso Flak and Vengeancegrund. North of Egholm it is joined by the current from Agerso Sund, and the combined current, together with the E branch of the current which divides at Gaellegrund, then sets through Osterrenden. After setting through the passages on either side of Sprogo, the current continues N, passing on both sides of Elefantgrund. Like the S current, the N current is not strong in Kerteminde Bugt.

Depths—Limitations.—Depths in the Store Baelt are very irregular. Dybe Rende, the winding deep-water channel, has depths in excess of 27m, except in a few places, and extends through the entire length of the passage. In clear weather, vessels can transit Store Baelt in a least depth of 12.8m without following all the meandering of Dybe Rende.

The controlling depth in the passage for Route T is 19m, except for the northbound lane through Osterrenden, where the maximum depth is 17m.

The controlling depth in the passage for Route H is 12m. This route is mandatory for vessels, with drafts of 10m or less.

Pilotage.—Pilots for the Store Baelt and ports in this region are provided by the main Danpilot station (Beltpilot) at Spodsbjerg Havn (54°56'N., 10°50'E.).

Vessels proceeding N should send an ETA 12 hours in advance, using the call sign "Great Belt South" and stating their draft, speed, and pilotage requirements. Pilots can be contacted by VHF and board, as follows:

Return to paragraph: 2.13 2.16 2.22 2.28

1. In Route T—at position 54˚46.0N, 10˚49.0'E.
2. In Route H—at position 54˚47.5'N, 10˚52.5E.

Vessels proceeding S should send an ETA 12 hours in advance, using the call sign "Sprogo NE" and stating their draft, speed, and pilotage requirements. Pilots can be contacted by VHF and board in Route T at position 55˚23.5'N, 11˚00.0'E.

Regulations.—A mandatory Vessel Traffic Service (VTS) system, known as Great Belt Traffic, operates in the central part of Store Baelt. The N side of the VTS area is bounded by a line extending between Fyn and Sjaelland at latitude 55˚35'N. The S side of the VTS area is bounded by a line joining Stignaes oil pier (55˚12'N., 11˚15'E.), the S end of the island of Oma (55˚08'N., 11˚09'E.) and Hov Light (55˚09'N., 10˚57'E.), and an additional line extending between the coast of Langeland (55˚00'N., 10˚49'E.) and Thuro Rev Lighted Buoy (55˚01'N., 10˚44'E.).

For further information concerning the Great Belt Traffic VTS, see paragraph 2.11 (Store-Baelt Link).

Large vessels bound for the Baltic Sea should transit Route T, which leads from Lighted Buoy No. 1 (57˚48'N., 10˚44'E.), off Skagens, through Store Baelt to the S end of Langelands Baelt.

Sections of Route T within Samso Baelt, Store Baelt, and NE of Gedser Rev have been designated as Deep Water Routes. These sections must be avoided by vessels capable, because of their draft, of navigating outside the route.

Route H, which is situated at the E side of Langelands Baelt, must be used by vessels, with drafts of 10m or less.

Special rules and regulations, with reference to IMO resolutions, apply to vessels, with a draft of 13m and over, using the passages between Skagen and the entrances into the Baltic Sea. For further information concerning these rules and regulations, which are enforced by the Government of Denmark, see paragraph 1.1.

A reporting system (SHIPPOS) has been established within Danish waters of the Baltic Sea and along Route T. It applies to vessels of 20,000 grt and over; vessels of 1,600 grt and over carrying oil, gas, or chemicals; all vessels carrying radioactive materials; and all vessels, with drafts of 13m and over. For further details of SHIPPOS, see Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea.

Directions.—For details of designated routes in the Kattegat, see Pub. 193, Sailing Directions (Enroute) Skagerrak and Kattegat (Sector 7). Route T, which may best be seen on the chart, leads S into Store Baelt.

Route T—Route T leads S for 4.5 miles from Lighted Buoy No. 20 (55˚49'N., 10˚49'E.) and enters the Store Baelt. It passes between Lighted Buoy No. 21 and Lighted Buoy No. 22, which are moored about 2.5 miles WNW of Rosnaes Puller Light (55˚45'N., 10˚51'E.). The route then continues SSW for 6 miles to Lighted Buoy No. 23 (55˚39'N., 10˚47'E.).

From Lighted Buoy No. 23, the route leads SSE for 9 miles to Lighted Buoy No. 25 (55˚31'N., 10˚52'E.), passing 0.5 mile ENE of Romso Tue Light No. 24 (55˚34'N., 10˚49'E.), which is equipped with a racon.

From Lighted Buoy No. 25, Route T continues SE for 10 miles to the N entrance of Osterrenden.

An IMO-adopted Traffic Separation Scheme (TSS), which may best be seen on the chart, extends S for 3.5 miles though Osterrenden. The TSS traffic lanes, which are about 475m wide, pass under the suspension bridge that forms the E section of the Store Baelt Link (see paragraph 2.11).

From Lighted Buoy No. 28A, moored at the S entrance of the Osterrenden TSS, Route T leads SSE for 5.5 miles and passes between Lighted Buoy No. 32 (55˚14'N., 11˚07'E.) and Vengeancegrund No. 31 Light, about 0.7 mile W. This section of the track passes close WSW of Egholm Flag No. 30 Light (55˚15'N., 11˚06'E.).

From the vicinity of Lighted Buoy No. 32, the route leads S for about 1.5 miles to pass between Lighted Buoy No. 33 and Agerso Flak No.34 Light (55˚12'N., 11˚07'E.), which is equipped with a racon.

The track then divides with Route T leading SW and Route H leading SSW. Route T extends SW for 2.5 miles and then follows a designated Deep Water Route.

Deep Water Route.—The Deep Water Route, which is about 33 miles long, leads in a SSW direction through Langelands Baelt and may best be seen on the chart. It lies from 1 to 3 miles off the E coast of Langeland and is marked by lighted buoys, lights, and racons. The fairway varies in width from 0.2 to 0.8 mile and is swept to a least depth of 19m.

This Deep Water Route must be avoided by vessels capable of navigating outside it. However, mariners are to consider the possibility of changes in sea level caused by meteorological and other effects

The DW Lighted Buoy No. 61 (54˚40'N., 10˚45'E.) and the DW Lighted Buoy No.58, moored 1.5 miles NE, mark the S entrance of the Deep Water Route. From this entrance, Route T continues SE into Fehmarn Belt (see paragraph 4.1).

Route H.—Route H leads through Langelands Baelt on a track lying almost parallel to and on the E side of the Deep Water Route. It is marked by lighted buoys and may best be seen on the chart. This route has a minimum depth of 12m and must be used by vessels with a draft of 10m or less.

Northbound traffic passes to the E of the mid-channel aids; southbound traffic passes to the W of them.

Lighted Buoy No. 7 (54˚42.0'N., 10˚52.5'E.), moored 5.8 miles ESE of Keldsnor Light (54˚44'N., 10˚43'E.), marks the S limit of Route H within the Store Baelt. From Lighted Buoy No. 7, Route H continues SE into Fehmarn Belt (see paragraph 4.1).

Store Baelt—North Part

2.2 The N part of Store Baelt is the area lying between the N entrance and Sprogo. Kalundborg Fjord, Jammerland Bugt, and Musholm Bugt lie on the E side and Kerteminde Bugt lies on the W side. The isolated dangers lying in the triangle formed by the SE extremity of Samso, Rosnaes, and Fyn Hoved are also described. Depths within this triangle are very irregular.

General depths within the Store Baelt as far as Osterrenden and Vesterrenden range from 18 to 60m.

Rosnaes (55˚45'N., 10˚52'E.), the W extremity of Sjaelland, is the NE entrance point of the Store Baelt. This peninsula rises to barren hills, 60m high, and terminates in a narrow point faced with cliffs, l0m high. Rosnaes Rev, a shallow reef, fronts the point and extends up to about 0.5 mile seaward. For landmarks in the vicinity of Rosnaes, see paragraph 2.3.

Table of Contents

Rosnaes Light (55˚45'N., 10˚52'E.) is shown from a prominent tower, 15m high, standing at the W extremity of Rosnaes.

Rosnaes Light

A small fishing harbor is situated on the N shore of the peninsula, 2.5 miles E of the light. The entrance, 16m wide, faces SE and has a controlling depth of 2.8m.

A detached shoal patch, with a depth of 11.2m, lies about 1.8 miles SSW of Rosnaes Light and is marked by a lighted buoy.

Rosnaes Puller (55˚45'N., 10˚51'E.), a reef with large rocks, lies about 1.3 miles W of Rosnaes. A narrow channel, with a depth of 6.4m, leads between the inner side of this reef and the W extremity of Rosnaes Rev.

Rosnaes Puller Light (55˚45'N., 10˚51'E.) is shown from a prominent mast on a granite base, 9m high, standing on the NW part of the reef.

Lushage Light (55˚46'N., 10˚37'E.) is shown from a prominent mast, 7m high, standing on the SE extremity Samso.

2.3 Falkse Bolsaks (55˚43'N., 10˚43'E.), a rocky shoal, lies centered 4.2 miles SE of Lushage Light and about 4.5 miles WSW of Rosnaes Puller Light. It has a least depth of 3.5m and is marked by a buoy.

Bolsaks, a rocky shoal with a least depth of 1.3m, lies about 1.7 miles SW of Falkse Bolsaks is marked by a buoy.

Paludans Flak (55˚44'N., 10˚35'E.), a large shoal area with a least depth of 4.1m, lies about 2.7 miles SW of Lushage Light.

Fyns Hoved (55˚37'N., 10˚35'E.), a small peninsula located at the N end of Hindsholm, forms the NW entrance point of the Store Baelt. Baesbanke, 24m high, is a prominent hill standing on the W side of this peninsula.

Lillegrund (55˚39'N., 10˚38'E.), a shoal with a depth of 1.2m, lies near the end of the rocky spit extending 7 miles N from Fyns Hoved and is marked by a lighted buoy. A detached shoal patch, with a depth of 5.6m, lies about 1.5 miles N of Lillegrund and is marked by a buoy.

Ryggen (55˚37'N., 10˚45'E.), a detached rocky shoal with a depth of 5.9m, lies about 5 miles E of Fyns Hoved.

Directions.—Routes connecting the Store Baelt to the Lille Baelt lie between Fyns Hoved and the S side of Samso. A passage leads WNW between Paludans Flak and the coastal bank fronting the S side of Samso. The fairway, which is marked by two pairs of lighted buoys, is about 500m wide and has a controlling depth of 11.3m. Vessels leaving Route T can approach this passage from NW of Rosnaes Puller Light. They may also approach it from SSW of the light by passing between Falkse Bolsaks and Bolsaks.

It is reported (2002) that a new Deep Water Route leads W and SW between the N side of Lillegrund and the detached shoal, with a depth of 5.6m, lying about 1.5 miles N. The channel is marked by buoys and has a least depth of 15.7m.

Caution.—Between Rosnaes and Asnaes, 5 miles SE, the prevailing N flowing current sets almost directly across the passage toward the shoals of Falkse Bolsaks and Bolsaks.

A submarine cable area, which may best be seen on the chart, extends WNW from the W extremity of Rosnaes to Samso.

The inshore traffic zone of an IMO-adopted Traffic Separation Scheme (TSS) is situated N of the Rosnaes peninsula. For further information concerning this TSS, see Pub. 193, Sailing Directions (Enroute) Skagerrak and Kattegat (Sector 7).

Store Baelt—North Part—East Side

2.4 Kalundborg Fjord (55˚41'N., 11˚00'E.) is entered between Rosnaes and Asnaes, about 5 miles SE. This fjord extends about 7.5 miles ESE from its entrance and gradually narrows. There are general depths of 11 to 17m in the fjord but it shoals rapidly near the head. The S shore of the fjord is lower than that on the N side and is partly wooded. The N shore is hilly and devoid of woods.

Asnaes Nordvest Flak, a shallow and rocky shoal area, extends up to about 1 mile N of Asnaes and its seaward edge is marked by a buoy.

A prominent white church, with a red roof, is situated at Ulstrup, about 3 miles ESE of Rosnaes Light, and a conspicuous windmill stands close NW of it.

Another prominent white church, with a red roof, is situated on high ground at Rorby, about 0.8 mile inland and 7 miles ESE of Rosnaes Light.

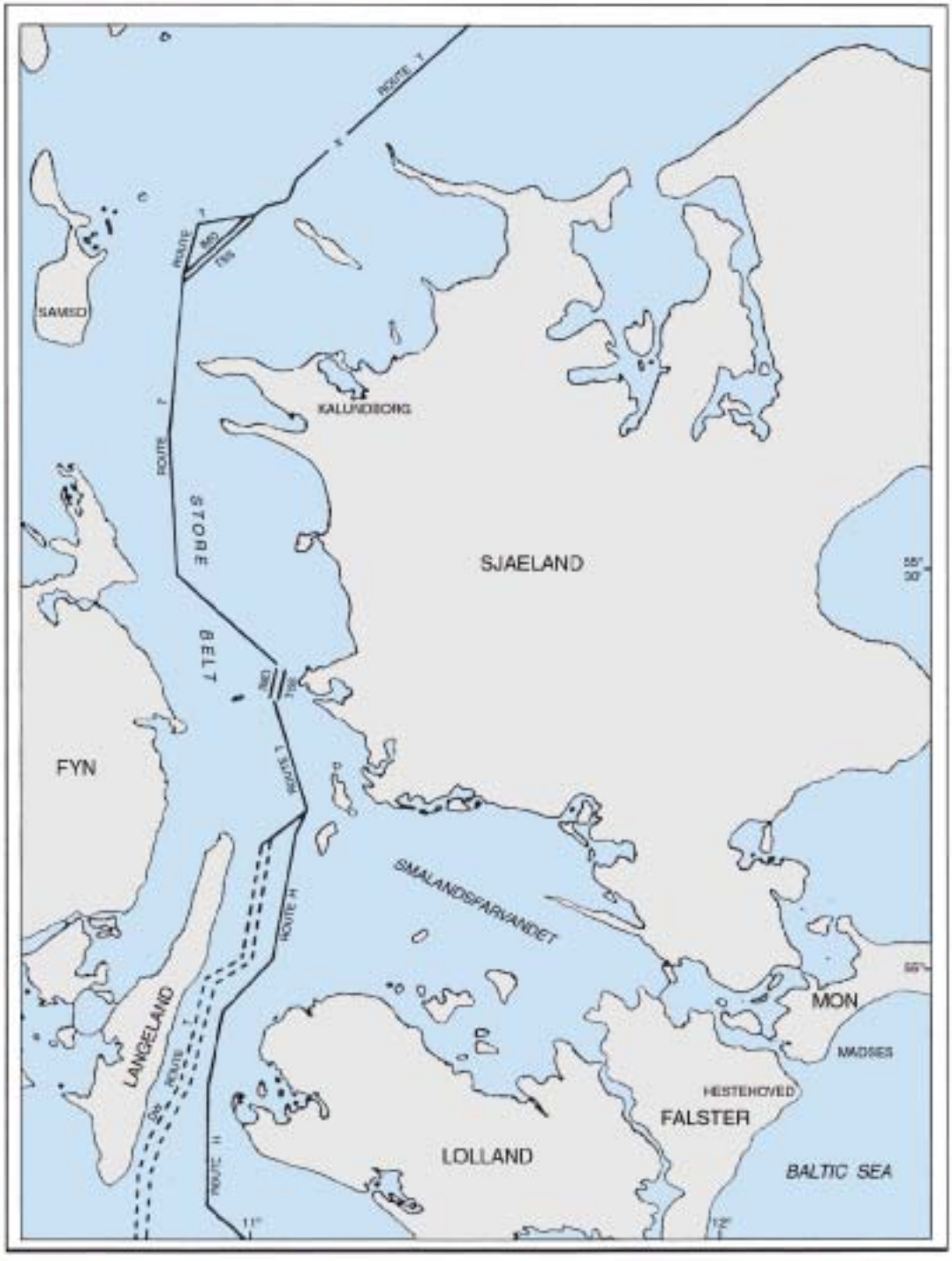
An aeronautical light is shown from a conspicuous television mast, 321m high, standing at Jyderup (55˚41.1'N., 11˚27.8'E.), about 20.5 miles ESE of Rosnaes Light.

Regulations.—Tanker lightening operations must be carried out within an area, with a radius of 0.3 mile, centered on position 55˚42.0'N, 10˚59.8'E. During these lightening operations, the tankers must display the appropriate signals provided in the 72 COLREGS and other vessels must pass at slow speed.

Special regulations, limiting speed and wave heights, apply in the E part of the fjord to high-speed ferries carrying vehicles.

Anchorage.—Vessels may anchor mostly anywhere within the fjord in good holding ground. Winds from W to NW cause a swell in the fjord, but vessels should still remain safe.

Directions.—To enter the fjord in the deepest water, vessels may pass, in a least depth of 15m, between the bank extending S from Rosnaes Light and the lighted buoy marking the shoal patch, with a depth of 11.2m, moored about 1.5 miles SSW.



Routes T and H

An alternative track, marked by lighted buoys, leads about 5 miles ESE, in a least depth of 13m, from a position located 2.5 miles NNW of Asnaes Light (55˚40'N., 10˚56'E.).

Kalundborg (55˚41'N., 11˚06'E.)

World Port Index No. 29490

2.5 Kalundborg harbor fronts the city and is situated on the N side of the head of the fjord. It is protected on the W side by Gisselore Pynt, a low tongue of land extending SE from the N shore of the fjord.

Winds—Weather.—The harbor area averages 65 days with fog or mist annually. The monthly average is 10 days for the months of December, January, and February. The average for the months of March, October, and November is 7 or 8 days. April, May, and September have a monthly average of 2 to 4 days. June, July, and August average l day each month.

Ice.—The approaches become encumbered with ice between January and March. However, the port is seldom closed.

Tides—Currents.—Gales from NW may raise the sea level as much as 1.3m and gales from SE may lower it by as much as 0.9m.

Depths—Limitations.—The entrance channel, 100m wide, has a dredged depth of 15m.

Kalundborg Havn, in the N part of the port, consists of Vesthavn, Osthavn, and Sydhavn.

Vesthavn, protected by a breakwater, has three main berths, 80 to 250m long, with depths of 6m alongside. It is mostly used by ro-ro ferries. The W part of this basin is used by yachts and fishing vessels.

Osthavn, located E of Vesthavn, has four main berths, 170 to 280m long, with depths of 7 to 10m alongside. This open basin provides ro-ro and bulk facilities.

Sydhavn, located S of Osthavn, has a quay, 170m long, with a depth of 8.5m alongside and another quay, 450m long, with depths of l0 to 12m alongside. This basin provides ro-ro, oil, and general cargo facilities. Vessels up to 240m in length, 35m beam, and 11.5m draft can be accommodated in this basin.

Dokhavn, located S of Sydhavn, has three main berths, 120 to 160m long, with depths of 5 to 10m alongside. Vessels up to 140m in length, 20m beam, and 9.5m draft can be accommodated in this basin.

Statoil Oil Terminal, located S of Dokhavn, consists of a quay and a pier, which extends about 420m WNW from the shore. The quay is 330m long and has a depth of 15m alongside. Tankers up to 140,000 dwt, 270m in length, and 14.2m draft can be handled.

The pier has three berths, 73 to 274m long, with depths of 5 to 13m alongside. Tankers up to 70,000 dwt, 264m in length, and 12.5m can be handled at the S side of the pier. Tankers exceeding 70,000 dwt, up to a maximum of 130,000 dwt, are limited to a maximum draft of 12.2m at the pier. The maximum freeboard allowed is 15.85m.

Asnaesvaerkets Havn, located W of Statoil Oil terminal, is a bulk terminal serving a power station. It is approached through a channel, 80m wide, with a dredged depth of 13.5m.

The coal berth has a depth of 13.5m alongside and can accommodate vessels up to 175,000 dwt, 290m in length, 45m beam, and 13.2m draft.

The oil berth has a depth of 9.5m alongside and can accommodate vessels up to 300m in length, 50m beam, and 9.2m draft.

The ash berth has a depth of 7.7m alongside and can accommodate vessels up to 120m in length, 20m beam, and 7.2m draft.

The gypsum berth has a depth of 9.5m alongside and can accommodate vessels up to 120m in length, 20m beam, and 9.2m draft.

Aspect.—The entrance channel is marked by lighted buoys and indicated by a lighted range.

A light is shown from a prominent framework tower, 4m high, standing on the end of Gisselore Pynt (55˚40.2'N., 11˚04.6'E.). A radio mast, 145m high, and a disused light tower stand close N of this light. A narrow bank fronts Gisselore Pynt and its edge is marked by a lighted buoy.

A castle and a church, both prominent, stand in the city. The church has five high, pointed towers.

Two conspicuous chimneys, the taller one being 224m high, stand near the power station in the S part of the port.

Kalundborg Church

Kalundborg—Vesthavn

Kalundborg—Osthavn

Kalundborg—Sydhavn

Kalundborg—Dokhavn and Statoil Terminal

Pilotage.—Pilotage is compulsory for tankers of 500 grt and over and vessels over 60m in length. Pilotage for Asnaesvaerkets Havn is compulsory for vessels over 5,000 dwt. Vessels should send a message requesting pilotage through the agent at least 24 hours in advance. This request may be sent through the agent along with the ETA message.

Pilots can be contacted by VHF and board about 2.1 miles W of Rosnaes Light (Rosnaes), about 1.3 miles S of Rosnaes Light (Rosnaes SE), about 5.5 miles WNW of Rosnaes Light (Samso SE), or in the vicinity of Lighted Buoy No. 23 (55˚39'N., 10˚47'E.).

Kalundborg pilots may be contacted by E-mail at Kalundborg@pilotage.dk.

Regulations.—Vessels must send an ETA message through the agent 72 hours and 24 hours in advance. Any changes to the ETA of over 2 hours should be reported to the agent.

Vessels must call their agent when 5 miles from the port to confirm their ETA.

Vessels must maintain a continuous listening watch on VHF channel 16 when in Kalundborg Fjord.

Inbound vessels over 100 grt should broadcast their presence on VHF channels 12 and 16 when passing Asnaes Northwest Flak.

Departing vessels must wait until vessels entering the harbor have cleared the channel.

Caution.—Numerous ferries, including high speed craft, may be encountered in the approaches to the port.

2.6 Asnaes Light (55˚40'N., 10˚56'E.) is shown from a structure, 4m high, standing on the W extremity of Asnaes, the peninsula separating Kalundborg Fjord from Jammerland Bugt.

Asnaes Rev (55˚39'N., 10˚53'E.), a shoal with depths of 2.2 to 7.8m, fronts the W end of Asnaes. It extends up to about 2 miles WSW of Asnaes Light and is marked by a buoy.

Jammerland Bugt (55˚36'N., 11˚04'E.) lies between Asnaes and Reerso, a small peninsula. It is seldom used by large vessels. The coastal bank, with depths of less than 10m, extends up to about 3 miles from the shore in places and several shoal lie in the approach to this bight.

A prominent church stands 1.3 miles inland at Svallerup, about 9 miles SE of Asnaes Light and near the middle of the bight. Another prominent church is situated at Udby, about 1.5 mile NE of Svallerup.

Lysegrund (55˚35'N., 10˚55'E.), an extensive shoal with depths of 4.3 to 9.1m, lies centered 4 miles S of Asnaes Light and in the outer approach to Jammerland Bugt.

Reerso (55˚32'N., 11˚06'E.), the small peninsula separating Jammerland Bugt from Musholm Bugt, is joined to Sjaelland by a low, narrow isthmus. The W side of this peninsula is faced with cliffs and rises to a height of 19m. A church, with a prominent spire, stands on the E side. A small fishing harbor is situated on the sheltered SE side of this peninsula.

Elefantgrund (55˚32'N., 10˚55'E.), a rocky shoal with a least depth of 3.4m, lies 5.5 miles W of Reerso and is marked by a buoy moored at its W side.

Musholm Bugt (55˚28'N., 11˚08'E.) lies between Reerso and the N extremity of Halsskov, 9 miles S. Its shores are devoid of woods except for a small plantation located near the middle. This bight has general depths of 7 to 16m lying between the shoals in the approaches and the coastal bank fronting the shore. A small and shallow fishing harbor is situated in the NE part of the bight, 2.3 miles SE of Reerso. A prominent church stands 1.4 miles inland at Kirke-Stillinge, about 4 miles SSE of the harbor.

Table of Contents

Musholm, a low island, lies in the N part of the bight, about 2 miles SSW of Reerso. Its W side rises to a height of 9m and ends in a steep, yellow cliff.

Slettingsgrund, a shoal patch with a least depth of 4.3m, lies in the approach to the bight, about 3.5 miles SSE of Musholm.

Anchorage may be taken in most parts of this bight with good holding ground. The S part has depths of 11 to 15m and the N part, which is sheltered from almost all winds, has depths of 7 to 9m.

Hojbjerg, 29m high, is a prominent hill, with a pointed summit, standing about 1.3 miles ESE of the N extremity of Halsskov.

Caution.—Two submarine gas pipelines, which may best be seen on the chart, extend W and SW across the Store Baelt from a point located on the shore of Musholm Bugt, about 6 miles SE of Reerso.

Restricted areas, 1 mile in diameter, are situated 3 miles and 6 miles W of Reerso and 1 mile N of Halsskovv. These areas, within which anchoring and trawling are prohibited due to the presence of unexploded ordnance, may best be seen on the chart.

Store Baelt—North Part—West Side

2.7 The E coast of Hindsholm, of which Fyns Hoved (55˚37'N., 10˚35'E.) is the N extremity, is hilly. The hills in the N part are barren, but those in the S have scattered wooded areas. A conspicuous white church, with a red roof, stands at Stubberup, about 5.5 miles SSE of Fyns Hoved.

Stubberup Knold (55˚35'N., 10˚45'E.), a small shoal area, has a least depth of 7.8m and lies 1.6 miles offshore, about 5 miles SE of Fyns Hoved.

Romso Tue No. 24 Light (55˚33'N., 10˚49'E.), equipped with a racon, is shown from a prominent green tower, 12m high, standing at the E side of Romso Tue Shoal. This detached shoal patch has a depth of 8.6m and lies about 8 miles SE of Fyns Hoved.

Polyphem, a shoal area with a least depth of 7.2m, lies about 1.5 miles WSW of Romso Tue.

Romso (55˚31'N., 10˚48'E.) is a low, wooded island with a cliff, 7m high on its E side. A rocky reef extends about 0.8 mile W from the low and narrow point forming the SW extremity of the island. Klaepen, a drying rock, lies at the seaward end of this reef and is marked by a buoy. A conspicuous disused light tower is situated on the E extremity of the island.

Romso Puller (55˚30'N., 10˚49'E.), a rocky shoal area with depths of 1.8 to 4.7m, lies at the outer edge of the coastal bank. It extends about 1 mile SE of Romso and is marked by a lighted buoy.

Large vessels may anchor, in a depth of 22m, about 2.3 miles SE of Romso.

Romso Sund (55˚31'N., 10˚45'E.), the passage leading between Romso and Hindsholm, can be used by vessels with local knowledge and drafts up to 4.5m.

Kerteminde Bugt (55˚27'N., 10˚43'E.) lies between Stavreshoved, the SE extremity of Hindsholm and Risinge Hoved, 4 miles S. Mollegrund, a shoal with a least depth of 5.6m, lies about 1.3 miles SSE of Stavreshoved, at the S edge of the coastal bank.

2.8 **Kerteminde** (55˚27'N., 10˚40'E.) (World Port Index No. 29870), a small port, lies at the head of Kerteminde Bugt and is situated between two long embankments at the entrance to Kertinge Nor, a shallow tidal lagoon.

Tides—Currents.—Tidal currents in the entrance attain rates up to 3 knots. During gales rates up to 5 knots may be experienced. Winds from NW to NE may raise the sea level by up to 1m and winds from SE may lower it by as much as 0.8m.

Depths—Limitations.—Two breakwaters protect the harbor entrance, which is 40m wide and has a controlling depth of 4.5m. A basin, used by fishing vessels, is situated on the S side of the harbor and has a depth of 3m. The quay on the N side of the harbor has depths of 4.2 to 5.5m alongside and can handle cargo vessels up to 120m in length and 4.2m draft. Vessels over 80m in length should be equipped with a bow thruster.

An extensive yacht marina is situated 0.2 mile N of the N breakwater.

Aspect.—The entrance fairway off the breakwater heads is marked by buoys. The approach is indicated by a lighted range. A prominent red church, with a square tower at its W end, stands in the town.

Pilotage.—Pilotage is not compulsory. Local pilots can be arranged through the main pilotage station (Beltpilot) at Spodsbjerg Havn (54˚56'N., 10˚50'E.) (see paragraph 1.1). Pilotage is advised for vessels with drafts over 3.7m without local knowledge. The harbor can be contacted by VHF.

Anchorage.—Vessels can anchor, according to draft, E of the port. This roadstead is sheltered from all but E winds and has good holding ground.

Caution.—Yacht races are held in the approaches to the port from April to November.

2.9 **Risinge Hoved** (55˚25'N., 10˚50'E.) forms the SE entrance point of Kerteminde Bugt. The shore between this point and Ostero, 8 miles SSE, is wooded. Ostero, a low peninsula, extends about 2 miles SE from the coast, in the vicinity of Nyborg.

Skalenbjerg (55˚22'N., 10˚44'E.), rising 3 miles S of Risinge Hoved, is a barren hill, 44m high, which is conspicuous from seaward. A windmotor is situated 1 mile E of this hill.

Knudshoved (55˚17'N., 10˚51'E.), a cliff-faced point, forms the SE extremity of Ostero. A light is shown from a prominent square tower, 12m high, standing on this point.

Knudshoved Faergehavn (55˚17'N., 10˚51'E.), situated close N of Knudshoved Light, is a ferry terminal harbor. It is used only by the automobile ferries operated by the railroads. No other vessels, including pleasure craft, may use the harbor. The entrance fairway is indicated by range beacons and has a depth of 6m.

Caution.—Two submarine gas pipelines, which may best be seen on the chart, extend across the Store Baelt from a point on the shore located about 2.5 miles SE of Risinge Hoved.

A submarine cable, which may best be seen on the chart, extends NE from a point on the shore located about 1.3 miles SE of Risinge Hoved.

An abnormal magnetic disturbance has been reported to exist in the area lying about 0.5 mile offshore, 4.2 miles NNW of Knudshoved.

Knudshoved Light

Store Baelt—Central Part

2.10 The central part of Store Baelt is the area bounded to the N by a line joining Halsskov, Sprogo, and Ostero and to the S by a line extending across the N entrance of Langelands Baelt between Omo and Hov.

Sprogo (55˚20'N., 10˚58'E.), a hilly island lying between Halsskov and Ostero, divides the Store Baelt into two channels, Osterrenden on the E side and Vesterrenden on the W side. A prominent disused light tower stands on a hill, 25m high, at the E end of the island and is floodlit at night.

The passage through Osterrenden is narrowed by Sprogo E-Rev, a narrow reef of clay and rocks, which extends 1.4 miles ENE from the E side of Sprogo and Hasskov Rev, a rocky shoal, which extends 1.2 miles W from Hasskov.

The passage through Vesterrenden is narrowed by Alehus Rev, a rocky spit, which fronts the coast in the vicinity of Knudshoved and Sprogo Puller, a number of detached clay and rock shoals, which extend up to 2.3 miles SW of Sprogo.

The above dangers and the aids marking them may best be seen on the chart.

Caution.—Landing on Sprogo without prior permission is prohibited.

2.11 Store-Baelt Link (55˚19'N., 11˚00'E.) connects Ostero to Halsskov, 9 miles ENE, via Sprogo. The section spanning Vesterrenden, on the W side of Sprogo, consists of a low road and rail bridge. The section spanning Osterrenden, on the E side of Sprogo, consists of a high road bridge and two undersea tunnels.

Vesterrenden.—The W section of the link, which spans Vesterrenden, consists of a low-level bridge (West Bridge) supported by 62 piers, designated 2 through 63 as counted from Sprogo. The fairway channel for northbound traffic lies between piers 34 and 35, while the fairway channel for southbound traffic lies between piers 37 and 38. Each navigation channel has an overall width of 104m with a free vertical clearance at mean sea level of 18m over the central 70m.

Navigation through West Bridge is restricted to vessels of less than 1,000 dwt. Vessels of 1,000 dwt or more are required to use the appropriate traffic lanes in Osterrenden.

The designated fairway channels leading under the bridge are marked by lighted buoys and indicated by range lights. Racons are situated at the center of both navigation spans. The racon on the E span is apparent only to vessels approaching from S, while the racon on the W span is apparent only to vessels approaching from N.

Store Baelt Link

Vessels are advised that the prevailing current in Vesterrenden does not run parallel to the general direction of the traffic flow through the navigation channels.

To approach Vesterrenden from N, vessels should leave Route T at Lighted Buoy No. 25 (55˚31'N., 10˚52'E.) and steer in a S direction to pass W of Sprogo.

Store Baelt Link—East Bridge

Osterrenden.—The E section of the link, which spans Osterrenden, consists of a suspension bridge (East Bridge) with a total length of about 4.3 miles. The center span is 1,624m wide and has a vertical clearance of 65m at mean sea level.

The two conspicuous towers supporting the suspension bridge are 254m high.

An IMO-adopted Traffic Separation Scheme (TSS) is located in the vicinity of the main navigation span. Each lane is about 475m wide and marked by lighted buoys. The northbound lane, situated at the E side of the fairway channel, has a least depth of 17m. The southbound lane, situated at the W side of the fairway channel, has a least depth of 19m.

The traffic lanes of the TSS are marked by lights and lighted buoys, which may best be seen on the chart. Their entrances are indicated on the outer sides by racons. Racons, situated on the bridge span, indicate the directional fairways and are only

Table of Contents

apparent to vessels approaching in the designated lane. Range lights, situated on the underside of the bridge span, indicate the preferred line of passage through the lanes.

Vessels of less than 20m in length and sailing vessels are recommended to avoid the TSS lanes and use the adjacent spans. Fishing vessels are prohibited in the traffic lanes.

Route T follows the TSS through Osterrenden (see paragraph 2.1).

Regulations.—A mandatory Vessel Traffic Service (VTS) system, known as Great Belt Traffic, operates in the central part of the Store Baelt and renders assistance to vessels intending to pass through Osterrenden or Vesterrenden.

The N side of the VTS area is bounded by a line extending between Fyn and Sjaelland at latitude 55˚35'N.

The S side of the VTS area is bounded by a line joining Stignaes oil pier (55˚12'N., 11˚15'E.), the S end of the island of Oma (55˚08'N., 11˚09'E.) and Hov Light on Langekand (55˚09'N., 10˚57'E.), and an additional line extending between the coast of Langeland (55˚00'N., 10˚49'E.) and Thuro Rev Lighted Buoy (55˚01'N., 10˚44'E.).

The VTS system, call sign Great Belt Traffic (GBT), can be contacted on VHF channels 10, 11, and 16. Languages used are Danish and English.

Vessels unable to communicate by VHF should report to Great Belt Traffic (GBT) via a Danish coast radio station 2 hours prior to passage through the bridge area. The report, which must be sent as a telegram with the codeword GBT, should also contain information concerning other possible methods of communication. This transmission is free of charge.

It is mandatory for all vessels of 50 grt and over and all vessels with an air draft of 15m and over to participate in the VTS reporting system. Reports shall be submitted when entering the VTS area and must contain the following information:

Designator	Information Required
A	Vessel name and call sign.
B	Time (in UTC/GMT) if submitted through a coast radio station.
C	Geographical position given by two four-digit groups; or
D	True bearing and distance given in miles from an identifiable point (state name).
E	Course (northbound or southbound).
F	Speed in knots (two digits).
J	State whether pilot is on board.
L	State which channel the vessel intends to use (Eastern Channel or Western Channel).
Q	Brief details of defects, deficiencies, or restrictions of maneuverability.
U	Vessel's dwt and air draft.

Information about specific situations concerning the safety of navigation in the area will be broadcast by Great Belt Traffic on VHF channel 11, with a prior announcement on VHF channel 16. All vessels within the VTS area should listen to the broadcast.

Vessels which do not have updated navigation information are advised to employ a pilot prior to passing the bridge area.

The Great Belt Traffic Center can provide advice to vessels which may constitute a risk to the West Bridge due to their size, course, or air draft. In addition, information concerning buoyage, lights, wind, currents, and traffic in the vicinity of both bridges is available.

Vessels required to participate in the VTS system must report to Great Belt Traffic when departing from a harbor located within the VTS area.

Anchorage.—Vessels waiting for pilots, improvements in weather conditions, or for any other reasons connected to their passage through Osterrenden can anchor within two designated areas, with a radius of 1 mile, which may best be seen on the chart. The area for southbound vessels lies centered 3.5 miles NNW of Sprogo and the area for northbound vessels lies centered 5 miles SSE of Sprogo. These areas have depths of 17 to 22m and are under the control of Great Belt Traffic VTS.

Caution.—Submarine cables, which may best be seen on the chart, extend across the Store Baelt between Hasskov and the Ostero Peninsula.

Store Baelt—Central Part—East Side

2.12 **Halsskov** (55˚21'N., 11˚06'E.), a small promontory, forms the E shore of Osterrenden. The coast, to the N of its low-lying SW extremity is faced with prominent yellow cliffs.

Halsskov Rev, a shoal area, extends up to about 1.5 miles SW from the SW extremity of Halsskov. This area has depths of less than 6m lying up to 1 mile offshore and detached, rocky patches, with depths of less than 6m, extending up to 2 miles seaward.

Halsskov Harbor (55˚21'N., 11˚06'E.), situated on the S side of Halsskov, is used only by state-owned ferries. The entrance, protected by two breakwaters, faces SW. It is 120m wide and has a controlling depth of 7.5m. The ferry slips at the head of the harbor basin have depths of 6.5 to 8m alongside.

Korsor (55˚20'N., 11˚08'E.)

World Port Index No. 29520

2.13 Korsor, lying 1 mile SE of Halsslov, is a commercial port and naval base. The town stands on both sides of the entrance to Korsor Nor, a shallow tidal lagoon.

Ice.—The port is kept open mostly all year round by strong currents and ice breaker assistance.

Tides—Currents.—The mean range of tide is 0.3m. Gales from NW to NE may raise the sea level by up to 1.2m and gales from S may lower it by as much as 0.8m.

During calm periods, there are regular incoming and outgoing tidal currents in the harbor and the passage leading to Korsor Nor. These currents are irregular in places and are quite strong at times.

Depths—Limitations.—The main approach channel, with a controlling depth of 8m and a width of 103m, leads ENE between the offshore dangers to the harbor entrance. The harbor is protected by N and S breakwaters and a detached breakwater,

200m long, lying close SW. It provides about 2,000m of main quayage.

The naval basin is situated close inside the S breakwater. Gamlehavn, the main section of the harbor, extends SSE from the outer part to Halsskov Bridge and has depths of 6 to 8m. Inderhavn, the inner section, lies E of the bridge and has depths up to 7m.

Halsskov Bridge, separating Gamlehavn from Inderhavn, is a fixed rail bridge with a single raising bascule at the S end. The navigable passage at the bridge is 25.5m wide with a vertical clearance of 26.8m alongside the bascule pillar. Vessels up to 100m in length, 25m beam, and 5.7m draft may proceed through this bridge passage.

The port has facilities for general cargo, bulk, ro-ro, and cruise vessels. Vessels up to 200m in length, 30m beam, and 7.5m draft can be accommodated.

Aspect.—Prominent cliffs form the part of the coast adjacent to a hill, 20m high, which rises between Halsskov Harbor and Korsor. The dredged approach channel is indicated by a lighted range.

A castle, with a conspicuous tower, stands on the S side of the entrance to the main harbor. Prominent water towers are situated 0.2 mile E and 0.7 mile SE of the castle.

Bonderup, an estate with a conspicuous white building, is situated 2 miles SE of the harbor.

Pilotage.—Pilotage is not compulsory, but is advised for vessels without local knowledge. Pilots are provided by the main station (Beltpilot) at Spodsbjerg Havn (54˚56'N., 10˚50'E.) (see paragraph 2.1). Pilots can be contacted by VHF and board about 2 miles WSW of the harbor entrance.

Regulations.—All unauthorized vessels are prohibited from entry or approaching within 30m of the naval basin.

Under normal conditions, vessels entering and leaving the port have the right of way over vessels proceeding through the entrance of the naval basin. In an emergency, however, naval vessels have priority. Such emergencies are indicated by a quick red-flashing light shown from the naval signal station.

Anchorage.—Anchorage is available, in depths of 15 to 27m, about 2.3 miles SW of the harbor entrance.

2.14 Egholm (55˚15'N., 11˚11'E.) is a small and low island lying 5.5 miles SSE of Korsor. It is partly wooded with no prominent features. Egholm Flak, the bank fronting this island extends up to 2 miles N and 2.5 miles NW of the island.

Egholm No. 30 Light (55˚15'N., 11˚06'E.) is shown from a mast on a platform, 10m high, standing about 2.6 miles WNW of Egholm, near the outer edge of Egholm Flak.

Vengeancegrund No. 31 Light (55˚18'N., 10˚46'E.) is shown from a mast on a platform, 10m high, standing on the E side of an isolated shoal patch, with a depth of 9.7m, lying about 3.2 miles WSW of Egholm.

Agerso (55˚13'N., 11˚11'E.) is a low, flat island rising to a height of 12m in its central part. A causeway leads over the drying bank and connects the N end of Agerso with Egholm.

Agerso Light is shown from a lattice mast standing on Naebbet, the SW extremity of the island.

Agerso Havn, a small harbor, is situated at the E side of the island, about 1 mile NE of Agerso Light. It is used by pilot boats and fishing vessels. The entrance, which is protected by two breakwaters, is 15m wide and has a controlling depth of 2.8m. A ferry terminal, formed by two moles, is situated close N of the harbor and has a controlling depth of 3m.

Helleholm Light (55˚11'N., 11˚13'E.) is shown from a prominent tower, 12m high, standing near the SW extremity of the low peninsula forming the S end of Agerso.

Agerso Flak, a large shoal area, extends up to about 2 miles W of Agerso Light.

Agerso Flak No. 34 Light (55˚12'N., 11˚07'E.), equipped with a racon, is shown from a mast on a platform, 10m high, standing about 2.3 miles W of Agerso Light, near the outer edge of Agerso Flak. A shoal, with a least depth of 5.9m, lies about 1.3 miles W of this light and is marked on its E side by a lighted buoy.

Omo (55˚10'N., 11˚10'E.) lies about 2 miles SW of Helleholm Light and is separated from the SW side of Agerso by Omo Sund. A conspicuous white church stands in a village near the center of the island. Skovbanke, 24m high, is a prominent barren hill that rises on the NE side of the island and slopes steeply on its E side.

Langelansore Light (Omo Light)

Langelandsore Light (Omo Light) (55˚10'N., 11˚08'E.) is shown from a prominent tower, 22m high, standing on the W extremity of the island.

Omo Havn, a small craft harbor, is situated on the N side of the island and protected by two breakwaters. It is entered from NE through a dredged channel, 25m wide, with a controlling depth of 3m.

Omo NW Flak, a shoal area, extends up to about 1.5 miles NW of the island and may best be seen on the chart.

Store Baelt—Central Part—West Side

2.15 Nyborg Fjord (55˚17'N., 10˚50'E.) extends in a NW direction for 2 miles on the SW side of the Ostero peninsula. The W shore of this fjord is comparatively high and wooded. The fjord affords sheltered anchorage from all winds, but the entrance channel is restricted by shoal flats extending from the shores.

Holckenhavn Fjord, a shallow arm, extends about 1 mile W from the W side of Nyborg Fjord. A castle, consisting of a

Table of Contents

yellow building with a square tower and a spire, stands on the S shore of the entrance to the fjord and is conspicuous from seaward.

A prominent white church, with a high-stepped gable, stands in Vindinge, about 2 miles NW of the castle.

Slipshavn (55˚17'N., 10˚50'E.), a small harbor, lies within a cove on the N side of Slipshavn Pynt, the SW extremity of Ostero. This harbor has depths of 2.7 to 3.9m and normally is only used by naval and government vessels. Unauthorized entry is prohibited.

Nyborg (55˚19'N., 10˚48'E.)

World Port Index No. 29860

2.16 Nyborg, a former main ferry terminal, is situated at the head of Nyborg Fjord. The port also includes Lindholm Havn, which is situated about 0.8 mile NNW of the SW extremity of Ostero.

Ice.—The port is normally kept open all year round by ice breakers.

Tides—Currents.—The mean range of tide is 0.3m. Gales, depending on direction, may raise or low the water level in the harbor by as much as 0.8m.

Depths—Limitations.—Nyborg Havn consists of the former ferry basin, Vesterhavn, and Osterhavn. The former ferry basin has five piers with depths of 5 to 8m alongside. Vesterhavn, close W of the ferry basin, has two ro-ro berths, with depths of 7 to 7.5m alongside. It can accommodate vessels up to 7.5m draft. Osterhavn, a small basin at the NE end of Vesterhavn, has a depth of 5m.

Avernakke Oil Pier is located S of Nyborg Havn. It has two main berths, 65 and 100m long, with depths of 6 to 10m alongside. Tankers up to 200m in length and 10m draft can be accommodated.

Lindholm Havn is approached through a dredged channel with a controlling depth of 11m. There are thee main quays, 80 to 240m long, with depths of 5 to 11m alongside. Vessels up to 230m in length and 10m draft can be accommodated.

The port has facilities for general cargo, ro-ro, bulk, container, tanker, and fishing vessels.

Aspect.—The approach channel leading into the fjord and the entrance fairways leading to the harbor are indicated by lighted ranges. Slipshavn Light is shown from a framework tower, 6m high, standing on the SW extremity of Ostero. An outer approach lighted buoy is moored about 1mile SSE of this light.

A conspicuous church, with a tall slender spire, stands in the city, close N of the harbor.

Pilotage.—Pilotage is not compulsory, but is advised for vessels without local knowledge. Pilots are provided by the main station (Beltpilot) at Spodsbjerg Havn (54˚56'N., 10˚50'E.) (see paragraph 2.1). Pilots can be contacted by VHF and board about 0.6 mile E of the outer approach lighted buoy.

Regulations.—Vessels leaving Lindholm Havn must give way to vessels in the main channel proceeding to the harbor at Nyborg.

Anchorage.—The best anchorage in the fjord is in its widest part, off the entrance to Holckenhavn Fjord. This roadstead has a depth of 10m and is sheltered from all quarters, but SE winds may raise some sea.

Caution.—It is reported that the structures of the lighted range indicating the harbor entrance channel are difficult to identify.

2.17 **Vest-lige Puller** (55˚17'N., 10˚54'E.), a detached shoal patch, lies about 1.6 miles E of Knudshoved Light. It has a least depth of 6.2m and is marked by a lighted buoy moored at its W side.

Ost-lige Puller (55˚17'N., 10˚56'E.), a shoal with a depth of 6m, lies about 2.8 miles ENE of Knudshoved Light and is marked by a lighted buoy moored at its N side. This shoal is located at the N end of a rocky ridge, which may best be seen on the chart.

Dronning Maries Puller, a shoal with a depth of 5.8m, lies on the ridge about 1 mile SSW of Ost-lige Puller.

Kloverhage Pynt (55˚14'N., 10˚49'E.), situated about 3.5 miles S of Ostero, is a low, rounded point backed by a low bluff. Helvedbakke, 58m high, is a prominent hill, with a wooded summit, standing about 2 miles NW of the point.

A conspicuous red church, with a slender spire, stands at Tarup, about 1.4 mile WNW of the point. Another conspicuous church, white with a tall dark spire, stands at Svindinge, 3.2 miles WSW of Tarup.

Klintholm Warehouse, a large white building with a red roof, stands on the coast, 2.6 miles S of Kloverhage Pynt and is conspicuous from seaward.

Vresen (55˚13'N., 10˚53'E.), a narrow grass-covered islet, lies 2.5 miles ESE of Kloverhage Pynt. This islet, which is about 1 mile long, is marked at its N end by a beacon.

Vresen Puller (55˚15'N., 10˚54'E.) consists of a number of rocky shoals, with depths of less than 3m, extending up to about 2 miles N of Vresen.

2.18 **Hov** (55˚10'N., 10˚56'E.), the N extremity of Langeland, terminates in Lille Hov, a steep bluff, 6m high. Frankeklint, a prominent cliff, is located 0.3 mile SW of Hov. It is 14m high and appears yellow from seaward. A light is shown from a house, 4m high, standing on the top of this cliff.

Hov Light (55˚15'N., 10˚54'E.) is shown from a prominent tower, 12m high, standing about 1 mile SE of Hov.

Hov Sand, with depths of less than 5m, fronts Hov and extends up to about 1.8 miles N.

A shallow ridge of rocky shoals extends from a point on the W side of Langeland located about 3 miles SW of Hov to Vresen. This ridge is about 1 mile wide and may best be seen on the chart.

Kobberdyb (55˚12'N., 10˚54'E.), a narrow channel, is the deepest passage leading across the ridge. It lies about 0.8 mile S of Vresen and is used by small vessels with local knowledge. The fairway has a controlling depth of 4.3m.

Stokkebaek Flak (55˚10'N., 10˚50'E.), a rocky shoal with a least depth of 3.7m, lies about 3.5 miles W of Hov. It is located about 1.2 miles offshore, near the outer edge of the coastal bank, and is marked by a buoy.

Directions.—Having passed S of the West Bridge in Vesterrenden, vessels may proceed to the E side of the Store Baelt by following a channel lying S of the banks fronting the

Hov Light

Elsehoved Light

S side of Sprogo. The track passes N of Ost-lige Puller and then leads ESE for about 5 miles to join Route T.

Vessels proceeding S into the passage lying between Fyn and Langeland should head SSW and pass WNW of Vest-lige Puller. They should then adjust course in a S direction to pass between the coastal bank on the W side and the rocky ridge extending S from Vresen on the E side.

Store Baelt—South Part—West Section

2.19 The W section of the S part of the Store Baelt consists of a passage bounded on the W side by the E coasts of Fyn and Thuro and on the E side by the N half of the W coast of Langeland. From the vicinity of Stokkebaek Flak (55˚10'N., 10˚50'E.), the channel leads 10 miles SSW between the coastal banks.

The fairway leading through the passage as far S as the E approach to Svendborg Sund has a controlling depth of 10m.

The E approach fairway leading to Svendborg Sund has a controlling depth of 6.7m (see paragraph 2.22).

The N approach fairway leading to Rudkobing has a controlling depth of 5m (see paragraph 2.23).

2.20 East coast of Fyn.—Lundeborg (55˚08'N., 10˚47'E.), a small fishing harbor, is situated 5.5 miles S of Kloverhage Pynt. The entrance, 10m wide, faces S and has a controlling depth of 2.5m.

The shore between Kloverhage Pynt and this harbor rises inland. There are several large woods and fields enclosed by hedges, which give a general wooded appearance.

Ore Flak (55˚08'N., 10˚48'E.), a rocky shoal with a depth of 4.3m, lies on the coastal bank, about 1 mile SE of Lundeborg.

Elsehoved Light (55˚06'N., 10˚47'E.) is shown from a prominent metal tower, 8m high, standing on a low point faced with a bluff, 7m high.

Tiselholt Manor, a large red building with a small spire, stands 0.7 mile WSW of Elsehoved Light. The spire is visible above the trees, but the building is reported to be conspicuous from only ESE.

Thuro (Turo) (55˚03'N., 10˚42'E.), a low island, lies 0.5 mile off the SE coast of Fyn, 4.5 miles SW of Elsehoved Light. The island is well built over, particularly in the N part. A hill, surmounted by a prominent windmill, rises in the NW part. The E and S sides of the island are partially wooded.

Thuro Rev, a shoal with depths of less than 3m, extends up to about 1 mile SE from the SE extremity of the island and is marked by a lighted buoy.

Thuro Bund, a long and narrow inlet, indents the W side of Thuro island. It is used as a winter anchorage by small local vessels.

Skarupore Sund (Skaurup Sund) (55˚04'N., 10˚42'E.), the shallow passage leading between the coast of Fyn and the N side of Thuro, is only navigable by small craft. A low road bridge spans the passage at its W end.

Gronneodde (55˚02'N., 10˚40'E.), a shallow spit, fronts the SW extremity of Thuro and is marked by a buoy. Grasten Pier, 29m long, is situated close N of this spit and has a depth of 3.5m alongside its head.

Tasinge (55˚00'N., 10˚33'E.), well built over and wooded in places, is the largest island lying S of Fyn. Valdemarsslot, a prominent castle, stands near the shore in the NE part of the island. It appears from seaward as a large group of buildings, with the main structure having a dark blue roof.

A prominent red church, with a dark roof and spire, stands at Bregninge, 1.5 miles W of the castle, and surmounts the highest point of the island. A prominent windmill is situated close NE of this church. Another prominent church stands on the side of a hill at Bjerreby, in the S part of the island.

The peninsula of Vemmenaes forms the SE part of Tasinge. Lunke Bugt, a shallow bay, lies within the hook of this peninsula.

Caution.—Submarine cables, which may best be seen on the chart, extend between Fyn and Langeland in the vicinity of Elshoved Light and Dagelokke.

2.21 West coast of Langeland.—Lohals (55˚08'N., 10˚54'E.), a small harbor, lies 2 miles SW of Hov, the N extremity of Langeland. It consists of two basins protected by breakwaters. The S basin is used by small craft and yachts. The N basin has a berth for ro-ro ferries on the E side of the entrance. The entrance, 11m wide, faces S and has a controlling depth of 3.7m. Vessels up to 20m in length, 6m beam, and 3.5m draft can be accommodated.

Table of Contents

The main approach to the harbor is through a channel, with a controlling depth of 12m, which leads in a SSW direction between the shoal bank fronting Hov and the shallow ridge extending N from the NW side of Langeland. Two alternate routes lead across the above ridge, but they may only be used by small vessels and require local knowledge.

Hove Chapel stands about 0.8 mile ESE of Lohals. It is prominent, but hidden by woods on the N and S sides.

A conspicuous white church is situated at Stoense, 2.7 miles S of Lohals, and another conspicuous church stands in Snode, 0.8 mile SSE of it.

Dagelokke Havn (55˚04'N., 10˚52'E.), a small harbor, lies 4.5 miles SSW of Lohals and is protected by two breakwaters. The entrance, 14m wide, faces W and has a controlling depth of 2.6m. Vessels up to 30m in length, 7m beam, and 2.4m draft can enter. The conspicuous chimney of a brick works stands in the vicinity of the harbor.

A prominent church stands at Bostrup, 1.3 miles SE of Dagelokke, but it is reported to be only visible above the trees from W.

Between Dagelokke and Rudkkoping, about 8.5 miles SW, the W coast of Langeland rises gradually from the shore and is mostly well built over.

Sio (54˚57'N., 10˚41'E.), a small and low island, lies midway between the SE side of Tasinge and Rudkobing. A farm is situated in the center of this island and several houses stand near the SE extremity. The island is separated from Tasinge by Sio Sund, which is shallow and spanned by a fixed highway bridge.

For a description of the fixed bridge extending between the SE side of Sio and Rudkobing, see paragraph 2.23.

Svendborg (55˚04'N., 10˚37'E.)

World Port Index No. 29830

2.22 Svendborg is situated on the S coast of Fyn, near the middle of Svendborg Sund. The port is an important commercial center and ferry terminal.

The harbor consists of three principal basins and several smaller ones. Frederikso, an island, occupies the central part of the harbor and is connected to shore by a fixed bridge on its W side. An oil depot is situated near the E end of the island.

Ice.—Ice may be encountered from early December through the end of March. The port is usually kept open by icebreakers, except during very severe winters.

Tides—Currents.—There is a tidal range of 0.3 to 0.6m. The water level is determined by wind force and direction. Gales from N to NE can raise the water level up to 1.5m and gales from S to SW can lower it by the same amount.

Currents in Svendborg Sund are very irregular and are greatly influenced by the wind. Gales from NW usually generate W setting currents and gales from E usually generate E setting currents. The currents usually attain rates of 2 to 3 knots, but rates of up to 6 knots can occur in the narrower parts.

Depths—Limitations.—The E approach fairway, which has a controlling depth of 6.7m, leads between the W side of Thuro and the NE side of Tasinge. The W approach fairway has a controlling depth of 6.9m.

Ostre Havn and Nordre Havn, on the N side of Frederikso, form the main commercial berthing areas. The port provides about 2,000m of quayage with depths of 4.3 to 7.5m alongside. The tanker berth at the E end of Frederikso is 78m long and has a depth of 7m alongside.

There are facilities for general cargo, passenger, bulk, tanker, ro-ro, ferries, and coastal vessels. Vessels up to 27,300 dwt, 180m in length, and 6.5m draft can be accommodated.

Aspect.—The fairway channels leading through the E approach to Svendborg are marked by buoys and indicated by lighted ranges.

Pilotage.—Pilotage is not compulsory but is recommended. Pilotage is provided by the main Danpilot station (Beltpilot) at Spodsbjerg Havn (54˚56'N., 10˚50'E.) (see paragraph 2.1). Vessels should send an ETA to the pilot station 24 hours, 12 hours, and 4 hours in advance. Pilots can be contacted on VHF and board, as follows:

1. From the E—About 1 mile SE of the SE extremity of Thuro (Thuro Rev).
2. From the W and Faabourg—In position 55˚01.7'N, 10˚11.2'E (Skrams Flak).
3. From the W—In position 55˚01.3'N, 10˚31.9'E (Lehn-skov).

Anchorage.—Good anchorage is available, in depths of 7 to 11m, soft bottom, in the fairway lying between Thuro and Tasinge.

Caution.—Due to depths of less than 5m lying close adjacent to the fairway ranges in several places, the E approach can be transited only during daylight and under pilotage.

A number of small piers and marinas, used by pleasure craft, are situated in the vicinity of the port.

The direction of buoyage changes off Svendborg.

2.23 Rudkobing (54˚56'N., 10˚43'E.) (World Port Index No. 29760), a small port, is situated on the W coast of Langeland, about 5.5 miles S of the SE extremity of Thuro. It can be approached from N or S through Rudkobing Lob, a narrow channel leading between Thuro and Langeland.

Ice.—Ice can present serious difficulties to traffic navigating in the channels leading between Tasinge and Langeland.

Tides—Currents.—The tidal range is negligible. Wind force and direction are the determining factors for the water level. Winds from NW to NE raise the water level by up to 0.6m and winds from S to SW lower it by as much as 1.2m.

During calm weather, the tidal current in Rudkobing Lob changes direction regularly about every 6 hours and attains a rate of about 2 knots. In unsettled weather, the currents may set in the same direction for several days and attain rates of 4 to 5 knots. Winds from NW usually cause a strong S setting current and winds from NE usually cause a strong N setting current.

Depths—Limitations.—The section of Rudkoping Lob lying N of the harbor has a controlling depth of 5m over a bottom width of 30m. The section lying S of the harbor has a controlling depth of only 3.2m.

Langelandsbroen, a fixed bridge, spans Rudkobing Lob and extends between the SE extremity of Sio and the harbor. The navigable span is located between supporting piers No. 11 and 12, counted from Sio. It has a navigable width of 80m and a vertical clearance of 26m.

Return to paragraph: 2.19 3.41 3.44

The main commercial harbor basin has an entrance, 18m wide, and depths 3.5 to 5m. A basin, used by fishing vessels, and a basin used by small ferries, are situated close NE and close SW, respectively, of the main basin. A marina lies close N of the harbor. There are facilities for general cargo, ferries, bulk, coasters, and fishing vessels. Vessels up to 82m in length, 15m beam, and 4.8m draft can be accommodated.

Aspect.—The approach channel is marked by lighted and unlighted buoys. Its outer section is indicated by a lighted range. An outer approach lighted buoy is moored about 1.8 miles NNE of Sio. The fairway leading under the bridge is marked by daymarks and synchronized flashing lights on pillars.

A prominent red church, with a tall spire, stands in the town and a conspicuous windmill is situated close SE of it. Another prominent church, with a chimney standing close SE of it, is situated about 0.3 mile E of the red church. A conspicuous silo stands in the vicinity of the main harbor basin.

Pilotage.—Pilotage is not compulsory but is recommended. Local pilots are available. Vessels should send an ETA and a request for pilotage 12 hours in advance.

Caution.—The dredged sections of the approach channel are subject to silting and depths may be less than indicated.

The currents set across the harbor entrance.

Store Baelt—South Part—East Section

2.24 The E section of the S part of the Store Baelt consists of Langelands Baelt, a passage bounded on the W side by Langeland and on the E side by a line separating Smalandsfarvandet from the Store Baelt and by the W coast of Lolland. The coastal bank fronting the shore is generally narrow but it extends up to about 1 mile seaward at a point about 4 miles S of Hov.

For details of Route H and Route T (Deep Water Route), which lead through Langelands Baelt, see paragraph 2.1.

Langelands Bank—West Side

2.25 The W side of Langelands Baelt is formed by the E coast of Langeland, which extends 28 miles SSW from Hov (55˚10'N., 10˚56'E.) to Dovnsklint, the S extremity of the island. The land is hilly and there are many woods. The S part of the island, in the vicinity of Dovnsklint, is known as Gulstav.

A conspicuous large main building stands at Nedergard, about 7.5 miles SSW of Hov. It is red and surrounded by trees.

Tranekaer Castle (55˚00'N., 10˚52'E.), a conspicuous red building surmounted by a thin spire, stands on high ground about 10 miles SSW of Hov.

A prominent church, with a tall spire, is situated 0.5 mile SW of the castle. A square tower, 9m high, stands on the coast, 1.5 miles ESE of this church, and is conspicuous from seaward.

Spodsbjerg Havn (54˚56'N., 10˚50'E.), a small harbor, lies about 4 miles S of Tranekaer Castle. It consists of three basins protected by breakwaters. The S basin, with depths up to 3.5m, is used by pleasure craft and the center basin, with a depth of 2.5m, is used by fishing vessels. The N basin, with a depth of 5m, is used exclusively by the Spodsbjerg - Naskov ferry vessels. The entrance to this ferry basin is 60m wide and is indicated by a lighted range.

Tranekaer Castle

A prominent church stands at Tullebolle, 1.8 miles NW of Spodsbjerg Havn. It has a square tower, but is visible only from SE. A conspicuous windmill is situated close NE of this church.

A prominent white church stands at Longelse, 1.3 miles SW of Spodsbjerg Havn, but is partially obscured by trees. A conspicuous windmill is situated 0.5 mile W of this church.

A prominent church stands at Fuglsbolle, 3.2 miles NW of Spodsbjerg Havn. It has a slender black spire, but can only be seen from certain directions.

A prominent church stands at Lindelse, 5.7 miles SW of Spodsbjerg Havn, and a conspicuous windmill is situated 0.4 mile ENE of it. A prominent large red building, with a spire, stands 1.4 miles SE of the church.

Prominent churches stand at Humble and at Fodslette, which are located 6.8 miles N and 5.8 miles NNE, respectively, of the S extremity of Langeland. However, they are only visible from certain directions. A conspicuous farm house stands at Hjortholm, 0.9 mile ENE of Fodslette.

A prominent church, with a square tower, stands at Tryggelev, 5 miles N of the S extremity of Langeland. A conspicuous chimney and a windmill are situated close NE and on a hill close SW, respectively, of this church and are clearly visible from SE.

A prominent white church, with a slender spire, stands at Magleby, 3.1 miles NNE of the S extremity of Langeland. A conspicuous windmill is situated at Sondenbro, 1.4 miles SSW of this church.

Keldsnor Light (54˚44'N., 10˚43'E.) is shown from a prominent tower, 34m high, standing on the SE extremity of Langeland. Dovnsklint, the S extremity of Langeland, is located 1.2 miles WSW of the light and is formed by white cliffs, up to 16m high.

Caution.—An area, within which anchoring and fishing are prohibited, lies centered about 3.5 miles NE of Keldsnor Light. The area extends up to 3 miles seaward from the E coast of Langeland and may best be seen on the chart.

Danger Areas, which may best be seen on the chart, lie centered about 4 miles SE and 11 miles ESE of Keldsnor Light. Anchoring, fishing, and underwater activities should be avoided within these areas due to the possible existence of bottom mines.

Table of Contents

Keldsnor Light

Langelands Bank—East Side

2.26 The E side of Langelands Baelt is formed, in the N part, by the a line separating Smalandsfarvandet from the Store Baelt and, in the S part, by the W coast of Lolland.

An extensive flat, with depths of less than 10m, extends between Omo (55˚10'N., 11˚10'E.) and the N coast of Lolland, 11 miles S, and may best be seen on the chart.

Omo Tofte, extending up to about 3 miles S of the S extremity of Omo, and Omo Stalgrunde, lying centered about 4.5 miles S of Omo, are two shoal areas lying on this extensive flat.

Numerous unmarked shoals and rocky areas lie on this flat. Therefore, navigation in the area lying between Omo and Lolland is mostly limited to small vessels with local knowledge. An unmarked narrow passage, with a controlling depth of 7.3m, leads E across the flat, about 4 miles N of Lolland.

A conspicuous meteorological mast, 48m high, stands on the W side of the shoal flat, about 5 miles SSW of the S extremity of Omo.

The W coast of Lolland bordering Langelands Baelt is low, flat, and wooded with few prominent landmarks.

Onsevig (54˚57'N., 11˚07'E.), a shallow inlet with wooded shores, indents the NW side of Lolland. It is entered between Klinteodde and Nojsomheds Odde, 0.4 mile WSW. A small harbor basin lies close off the E side of this inlet and is connected to the shore by a causeway, 180m long. The basin has an entrance, 10m wide, and is used only by small craft.

Eleven conspicuous floodlit wind generators are situated within an area, which may best be seen on the chart, lying about 1. 8 miles NE of the entrance to Onsevig.

Vensholm (54˚56'N., 11˚03'E.), a narrow islet, lies about 0.5 mile offshore, 2 miles WSW of the entrance to Onsevig.

2.27 **Tars** (54˚53'N., 11˚02'E.), a small harbor, is situated on the S side of Tars Vig, a small bay lying about 5 miles SW of Onsevig. It is used exclusively by local ferries. The approach channel is 40m wide and has a controlling depth of 5m. A small and shallow harbor, used by fishing vessels, lies 0.2 mile NW of the ferry harbor.

Nakskov Fjord (54˚50'N., 11˚00'E.) indents the W side of Lolland and extends about 5 miles SE. It is entered between Tars Vig and Albuen, 3.2 miles SW. The fjord is generally shallow and encumbered with numerous small islands. Several small bays indent the N shore.

Albuen Light (54˚50'N., 10˚57'E.) is shown from a prominent tower, 13m high, standing on the N end of a low peninsula, which is connected to the W side of Lolland by a long, narrow isthmus.

Albuen Light

Enehoje (54˚50'N., 11˚01'E.), 16m high, lies 2 miles E of Albuen Light and is the largest island in the fjord. Range lights are situated at the E and W sides of this island. A pier, 150m long, extends seaward from the E side of the island and has a depth of about 1m alongside.

Lango Havn (54˚49'N., 11˚01'E.), a small harbor formed by two moles, is situated on the S shore of the fjord. It is used by yachts and fishing vessels. The entrance faces NW and has a controlling depth of 3m.

Albue Flak (54˚49'N., 10˚55'E.), a shoal area with depths of 0.9 to 6m, extends up to about 1.8 miles W of Albuen Light and is marked by a buoy.

Kappel Church (54˚45'N., 11˚02'E.), white with a prominent pointed steeple, stands 4.5 miles SE of Albuen Light and marks the E side of the S end of Langelands Baelt.

Caution.—A Danger Area, which may best be seen on the chart, lies centered about 1.2 miles W of Tars, in the N approach to Nakskov Fjord. Anchoring, fishing, and underwater activities should be avoided within this area due to the possible existence of bottom mines.

Nakskov (54˚50'N., 11˚08'E.)

World Port Index No. 29700

2.28 Nakskov, the largest port in Lolland, is situated in a narrow winding inlet at the E end of Nakskov Fjord.

Ice.—Ice may be encountered from early December through the middle of March. During average winters, ice may encumber the approaches from early January to late February, but icebreakers are available.

Tides—Currents.—Gales from NE to E may raise the sea level by up to 1.5m and gales from SW to W may lower it by as much as 0.9m. The tidal range is negligible. The tidal currents alternate regularly about every 6 hours during calm weather and follow the general direction of the channel.

Depths—Limitations.—Shoal flats, with depths of less than 5m, front the entrance to the fjord. A main dredged approach channel, with a controlling depth of 6.3m over a bottom width of 30 to 40m, leads between the dangers in the fjord to the port. At a position close S of Enehoje, a secondary channel, with a controlling depth of 3.2m, branches off and also leads to the port.

The harbor provides about 2,800m of total berthage, with depths of 4.5 to 6.3m alongside. There are facilities for general cargo, ro-ro, bulk, tanker, and fishing vessels. Vessels up to 200m in length, 30m beam, and 5.8m draft can be accommodated.

There are two drydocks in the harbor. The largest can handle vessels up to 33,000 dwt and 190m in length.

Aspect.—An outer approach lighted buoy is moored about 1.8 miles NNW of Albuen Light, at the seaward end of the narrow, winding channel. The fairway is marked by lighted buoys, buoys, and lighted ranges.

A prominent red church, with a spire, stands in the town. Two conspicuous chimneys, tall and thin, are situated in the town and are visible from all directions. Several prominent cranes and silos stand in the vicinity of the harbor.

Pilotage.—Pilotage is not compulsory but is recommended. Pilotage is provided by the main Danpilot station (Beltpilot) at Spodsbjerg Havn (54˚56'N., 10˚50'E.) (see paragraph 2.1). Vessels should send an ETA and request for pilotage 6 hours in advance. Pilots can be contacted by VHF and board about 2.5 miles NW of Albuen Light.

Regulations.—The inner part of the approach channel has a speed limit of 5 knots.

Vessels of 2,000 dwt and less may enter the port by day or at night. Other vessels can only navigate safely at night with the assistance of searchlights. Such searchlights can be provided by a tug for which 24 hours notice is required.

Anchorage.—Anchorage in the fjord is limited to small vessels, in depths of up to 5.5m. Local knowledge is advised.

Caution.—The inner part of the fjord is designated as a wildlife reserve and entry is subject to numerous regulations.

Smalandsfarvandet

2.29 Smalandsfarvandet comprises the waters lying between Sjaelland, on the N side, and Lolland and Falster, on the S side. It connects Store Baelt with the Baltic Sea by means of the passages leading between Falster and Lolland, between Falster and Mon, and between Mon and Sjaelland.

Smalandsfarvandet is considered as being divided into a W part and an E part by the meridian of 11˚50'E. This meridian, which passes through Orehoved, the N extremity of Falster, lies 24 miles E of the line separating Smalandsfarvandet from the Store Baelt.

The principal entrances from the Store Baelt are Agerso Sund, lying between Agerso and the coast of Sjaelland, and Omo Sund, lying between Agerso and Omo (see paragraph 2.14).

The channels leading over the flat extending between Omo and the N coast of Lolland are suitable only for small vessels with local knowledge.

The W part of Smalandsfarvandet is wide but the channels narrow considerably in the E part. The coasts on both sides have numerous indentations. A few islands front the Sjaelland coast and several islands lie within about 7 miles of the N side of Lolland.

The principal entrances to the Baltic Sea are Gronsund, lying between the SW side of Mon and Falster; Guldborg Sund, lying between Falster and Lolland; and Bogestrom, lying between Sjaelland and Mon.

The main route through Smalandsfarvandet from the Store Baelt leads through Omo Sund and then SE through Gronsund. Most of the W part of Smalandsfarvandet has a controlling depth of 11m while most of the E part is relatively shallow. The dredged channel located at the E end of Gronsund has a controlling depth of 5m.

Secondary channels lead from the W entrances to the ports located on the N side of Lolland and on the S side of Sjaelland. There are also some small craft passages leading between the islands and shoal areas.

Guldborg Sund has a controlling depth of 6.1m as far as Nykobing, but it is then comparatively shallow S of this port.

Bogestrom, leading along the coast of Sjaelland and then NW of Mon, is comparatively shallow and may only be used by small vessels.

Vessels with drafts of more than 5m must approach the ports located within Smalandsfarvandet only from the Store Baelt.

Ice.—Ice may appear in Omo Sund and the deeper fairways in the W and SW parts of Smalandsfarvandet as early as the third week of December. It may remain as late as the second week of April.

Among the islands off the N coast of Lolland, ice forms quickly and often remains for a long time. The coast of Sjaelland may be rapidly obstructed by ice or cleared of it by a shift in the direction of the wind.

In the E part of Smalandsfarvandet, the relatively shallow channels usually freeze over early in the season, and once ice has formed it is slow to disappear. A large amount of drift ice may be carried in both directions through Gronsund, but the channel is seldom entirely frozen over.

Tides—Currents.—The tidal range is small, but strong winds may raise or lower the water level a considerable amount. During calm weather, tidal currents in Smalandsfarvandet set regularly E with a rising tide and W with a falling tide. In unsettled weather, the direction of the current is determined by the wind. An E current is formed by N and W winds and a W current is formed by E and S winds.

In the narrow channels in the E part of Smalandsfarvandet, the currents sometimes attain a velocity of 3 to 4 knots, but in the W part they seldom exceed a rate of 1 knot.

Pilotage.—Pilotage is provided by the Danpilot station at Stigsnaes (55˚12'N., 11˚15'E.). Vessels should send an ETA and a request for pilotage 12 hours in advance. Pilots can be

contacted by VHF and board about 4.5 miles NW of the N extremity of Agerso.

Smalandsfarvandet—West Part

2.30 Omo Sund (55˚11'N., 11˚11'E.), the main entrance channel leading from the Store Baelt, has depths exceeding 13m.

From a position about 0.5 mile S of Agerso Flak No. 34 Light (55˚12'N., 11˚07'E.), the route through the sound leads ESE for 2.5 miles and then SSE for 3 miles. A lighted buoy, marking the inner entrance of this sound, is moored about 2.5 miles SSE of the S extremity of Agerso.

Caution.—Several submarine cables, which may best be seen on the chart, extend across Omo Sund and are marked by directional beacons.

2.31 Agerso Sund (55˚13'N., 11˚14'E.), the northernmost passage leading from Store Baelt into Smalandsfarvandet, has depths of 10.2 to 61m in the fairway channel. It passes between Egholm and Agerso, on the W side, and the coast of Sjaelland, on the E side.

From a position about 4 miles NW of the N extremity of Egholm, the route through the sound leads ESE for 3.2 miles, SE for 1 mile, S for 3 miles, and SE for 3.5 miles.

The fairway is marked by lighted buoys, buoys, and lighted ranges.

Anchorage.—Bogevig, a bay lying between Egholm and the N part of Agerso, provides anchorage for large vessels. The roadstead has depths of 9 to 11m and lies between the steep-to coastal bank and the channel leading through the sound.

Caution.—Several submarine cables, which may best be seen on the chart, extend across Agerso Sund.

Several dangerous wrecks, which may best be seen on the chart, lie adjacent to the sides of the fairway channel.

Yacht racing marks may be moored adjacent to the E side of the fairway channel from April to November.

2.32 Skaelskor (55˚15'N., 11˚18'E.) (World Port Index No. 29530) is a small harbor lying in the SW section of the passage connecting Skaelskor Fjord and Skaelskor Nor.

The entrance to Skaelskor Fjord lies at the E side of Agerso Sund, 1.7 miles E of Egholm, and is protected by two breakwaters. The fjord extends about 1.5 miles in an ESE direction and then 1 mile NE to the harbor. Skaelskor Nor, an extensive shallow inlet, lies N of the harbor and is connected to the fjord by a narrow passage.

Ice.—Ice may appear as early as the beginning of November and remain until the first week of April.

Tides—Currents.—Due partly to the shallow inlet lying N of the harbor, the tidal currents are very strong. In calm weather the currents change regularly every 6 hours and attain rates up to 5 knots.

Depths—Limitations.—A dredged channel, with a controlling depth of 4.5m, leads through the fjord to the harbor.

The harbor consists of two basins with depths of 3.8 to 4.6m alongside. Vessels up to 60m in length, 10m beam, and 4.1m draft can be accommodated.

It is reported (2000) that the harbor is used mainly by yachts and fishing vessels, and seldom by commercial vessels.

Aspect.—The entrance channel is marked by buoys and is indicated by a lighted range.

A prominent red church, with a red roof, stands in the town and a conspicuous chimney is situated 0.8 mile W of it. A prominent red church stands at Boeslunde, 3.4 miles NNE of the entrance to the fjord.

Pilotage.—Pilotage is not compulsory but is recommended due to the strong currents in the area. Local pilots are available.

Caution.—The fjord and inlet are designated as a nature reserve and entry is subject to numerous restrictions.

2.33 Stigsnaesvaerket Havn (55˚12'N., 11˚15'E.) (World Port Index No. 29545) lies on the E side of Agerso Sund, 1.7 miles NE of the S extremity of Agerso, and serves a power plant. The fairway channel leading to the harbor has a dredged depth of 18m.

A T-shaped oil pier projects about 600m from the shore and has a depth of 16m alongside the head. The berth, formed by additional mooring dolphins, is 235m long. There are no length or beam restrictions at this berth but vessels are limited to a draft of 15m.

A coal discharge quay is situated close N of the oil pier. The berth is 300m long and has a depth of 18m alongside. Vessels up to 170,000 dwt, 300m in length, 45m beam, and 17m draft can be accommodated.

A coal loading berth, 135m long, is situated close N of the discharge quay and has a depth of 9m alongside. It can accommodate vessels up to 150m in length, 19m beam, and 8.5m draft.

An ash quay is situated close S of the oil pier. The berth is 60m long and has a depth of 8m alongside. It can accommodate vessels up to 130m in length and 7.5m draft.

Stigsnaes Ferry Harbor is situated 0.5 mile NW of Stigsnaesvaerket Havn. This harbor is used exclusively by small ferries and is closed to all other traffic.

Stigsnaesvaerket Havn

Gulfhavn (Stigsnaes Oil Pier) (55˚12'N., 11˚15'E.), situated 0.5 mile SE of Stigsnaesvaerket Havn, serves a refinery. It consists of a T-shaped pier extending 306m from the shore.

The pier head is 500m long and provides three main berths with depths of 7.5 to 16m alongside. Tankers up to 120,000 dwt (170,000 dwt partly loaded), 280m in length, and 15.5m draft can be accommodated.

Tides—Currents.—The currents at Stigsnaesvaerket Havn and Gulfhavn run parallel with the pierheads and attain a maximum rate of about 2 knots.

Gulfhavn—Stigsnaes

Aspect.—Two conspicuous chimneys stand near the power plant at Stigsnaesvaerket Havn. A prominent tank farm is situated in the vicinity of Gulfhavn.

A conspicuous castle stands at Borreby, about 2 miles NE of Stigsnaesvaerket Havn, and a prominent white church is situated about 1 mile E of it.

Pilotage.—Pilotage for Stigsnaesvaerket Havn and Gulfhavn is compulsory for vessels over 1,500 dwt or over 4,500 grt. Pilots are provided by the Danpilot station at Stigsnaes. Vessels should send an ETA 72 hours, 48 hours, and 24 hours in advance. Pilots can be contacted by VHF and board about 4 miles NW of the N extremity of Egholm.

2.34 Ferne Klint (55˚11'N., 11˚18'E.), the SE entrance point of Agerso Sund, is situated 1.2 miles ESE of Gulfhavn and formed by a small but conspicuous yellow cliff.

From Ferne Klint, the coast, for 7 miles E, is fronted by an extensive shallow lagoon, which is protected on its S side by a series of narrow strips of land and Glaeno, an island.

Glaeno (55˚12'N., 11˚26'E.) is situated 5 miles E of Ferne Klint. This island rises in steep, yellow bluffs to a height of 26m midway along its length. The part of the lagoon lying W of Glaeno is known as Basnaes Nor and the part lying E is known as Holsteinborg Nor. The coastal bank fronting this lagoon extends up to 1.5 miles seaward in places.

A prominent white church stands at Orslev, 1.5 miles NNW of Glaeno, and a conspicuous windmill is situated 0.5 mile ENE of it.

A conspicuous castle, with two thin spires, stands near extensive woodlands at Holsteinborg, 1.3 miles NE of Glaeno.

The land extending between the E end of the lagoon and Karrebaeksminde, 5 miles E, rises to an elevation of about 30m. Klinteby Klint, a steep and somewhat prominent cliff, stands about 4 miles E of Glaeno.

Knudshoved (55˚05'N., 11˚37'E.), a narrow peninsula, extends about 8 miles WNW from the S part of the Sjaelland coast. It is wooded except for a narrow isthmus near the W end.

Kirkegrund (55˚06'N., 11˚22'E.), marked by a buoy on the S side, is the westernmost of a chain of shoals and rocky areas extending about 9 miles WNW from the W end of Knudshoved.

Venegrunde (55˚06'N., 11˚28'E.), an area of rocky shoal patches, lies about midway between Kirkegrund and Knudshoved. It has a least depth of 1.7m near the E end and is marked by buoys.

Knudshoved Rev (55˚05'N., 11˚35'E.), an area of rocky patches with depths less than 10m, extends up to about 2 miles WNW of the W end of Knudshoved and is marked by a buoy.

Karrebaeksminde Bugt (55˚07'N., 11˚33'E.) is the water area lying N of Venegrunde and Knudshoved Rev. It has fairly regular depths up to 12m and is clear of dangers between the shoals on its S side and the coastal bank on its N side. In the middle of the bay the bottom is generally mud and toward the sides the bottom is sand.

2.35 Avno Fjord (55˚05'N., 11˚45'E.) is a shallow inlet, encumbered with rocks, which indents the coast at the SE end of Karrebaeksminde Bugt. It separates Knudshoved peninsula from the Sjaelland coast. A narrow and unmarked shallow channel leads to the head of this fjord.

From the head of Avno Fjord, at the root of Knudshoved peninsula, the E coast of Karrebaeksminde Bugt trends NW for 10 miles to Karrebaeksmind. Dybso Fjord and Karrebaek Fjord back the islands of Eno and Dybso, which together form the outer shore of the N part of this stretch of coast. Both of these fjords are shallow.

A prominent church, with a pointed tower, stands at Kong, about miles 4 miles N of the root of the Knudshoved peninsula. Another prominent red church is situated at Vester Egesborg, about 3 miles N of Kong.

Karrebaeksminde (55˚11'N., 11˚39'E.), a small harbor, is situated in the NE part of Karrebaeksminde Bugt. It is used by yachts and small craft but is no longer used by commercial vessels.

Karrebaeksminde Red is situated in the NE corner of Karrebaeksminde Bugt and provides anchorage. The roadstead lies within a small bight in the coastal bank close W of Karrebaeksminde and has depth of 7 to 8m, with good holding ground.

A dredged channel leads from the harbor area of Karrebaeksmind into a canal, which extends across Karrebaek Fjord to the port of Naestved.

Caution.—Designated nature reserve areas are situated within the waters of the lagoon (Basnaes Nor and Holsteinborg Nor), Dybso Fjord, and Karrebaek Fjord. Entry into these areas is subject to numerous restrictions.

Firing exercise areas, marked by buoys, occupy the central and E parts of Dybso Fjord.

A fish farm area, which may best be seen on the chart, lies centered about 2 miles SE of the SE extremity of Glaeno.

Naestved (55˚14'N., 11˚45'E.)

World Port Index No. 29555

2.36 Naestved, the port for an industrial center, is situated 5 miles NE of Karrebaeksminde.

Tides—Current.—The current at the port is negligible. The tidal currents at the entrance to Karrebaeksmind attain rates up to 4 knots, but are much influenced by the wind.

Winds from NW can raise the water level in the fjord by up to 1.2m and winds from E to SE can lower it by as much as 0.5m.

Depths—Limitations.—A dredged channel, marked by buoys, leads from the harbor area of Karrebaeksmind into a canal, which extends across Karrebaek Fjord to the port.

The entrance to the dredged channel at Karrebaeksmind is protected by two breakwaters and is 70m wide. The dredged channel has a bottom width of 20m. The canal has a surface width of 40m and a minimum bottom width of 16m. The dredged channel and canal have a controlling depth of 6m.

A fixed bridge, with a single bascule, spans the canal about 0.4 mile E of Karrebaeksminde. It has a navigable width of 22m and, when open, a vertical clearance of 20m.

An overhead power cable, with a vertical clearance of 33m, spans the canal 1.5 miles SW of the port.

A double-section swing bridge spans the canal about 1.4 miles SW of the port and has a navigable width of 42m.

The basins at Naestved provide about 1,100m of total quayage with a depth of 6m alongside. There are facilities for general cargo, timber, and bulk vessels. Vessels up to 118m in length, 14.4m beam, and 4.8m draft, or 12.2m beam and 5.6m draft, can be accommodated.

Pilotage.—Pilotage is compulsory for vessels over 800 dwt proceeding to Naestved. Pilots are provided by the Danpilot station at Karrebaeksminde. Pilots can be contacted by VHF and board about 2 miles SW of the entrance to Karrebaeksminde. Vessels exceeding 1,700 dwt are advised to employ a tug.

Regulations.—Speed through the fjord is limited to a maximum of 6 knots.

Vessels proceeding against the tidal current are required to give way to vessels proceeding with it.

Vessels over 1,800 dwt must transit through the single-bascule bridge with the assistance of a tug unless they are equipped with an adequate bow thruster.

Caution.—Submarine cables and pipelines extend across the canal in several places and are marked by notice boards.

2.37 Vejro (55˚02'N., 11˚22'E.), a low island, lies 9.5 miles WSW of the W end of the Knudshoved peninsula and is well built over. A main light is shown from a prominent tower, 16m high, standing on the NE side of the island.

Vejro Vestre Flak, a shallow area of rocks and stones, extends up to about 2.5 miles NW of the island and is marked by buoys.

A lighted buoy, marking the outer edge of the coastal bank in this vicinity, is moored about 3.4 miles NW of Vero Light.

Urne (54˚57'N., 11˚17'E.), a small harbor, is located on the NW coast of Lolland, about 5.5 miles SSW of Vejro. It consists of a basin connected to the shore by a causeway, 300m long. The harbor has a controlling depth of 1m and is only used by fishing boats.

The coast between Urne and Vigsnaes, 12 miles ESE, is generally low except for a short hilly stretch located 1 mile S of Kragenaes Havn. Numerous wooded areas fringe the shore and some extend to the waters edge.

Extensive shoal areas, which may best be seen on the chart, occupy most of the S half of the W part of Smalandsfarvandet. They surround the offshore islands and front the N coast of Lolland. Several shallow channels lead between the offshore islands but can be navigated only by small vessels.

Vejro Light

2.38 Rago (54˚58'N., 11˚19'E.), a small and flat island, lies on the shorebank, about 1.3 miles NE of Urne. It is low and covered with bushes. A prominent disused lookout tower stands at the E end of this island. Rago Kalv, an islet, lies close W of Rago and is connected to it by a rocky ridge.

Rago Flak, a shoal area with depths of less than 5m, surrounds these islands and extends up to about 3 miles NW. Rago Sund is the shallow passage leading between these Rago and the coast of Lolland.

Kragenaes Havn (54˚55'N., 11˚22'E.), a small harbor, is situated 3 miles SE of Urne and used by ferries. The entrance, which faces E, is 15m wide and has a controlling depth of 3m. The two ferry berths are situated outside the harbor, close N of the entrance, and have a depth of 3m alongside.

Fejo (54˚57'N., 11˚25'E.), a mostly flat and built over island, lies centered 2.5 miles NE of Kragenaes Havn. A prominent mill, without sails, stands at Osterby, about 1.5 miles W of the E extremity of the island.

Skalo, an islet, lies close off the NW extremity of Fejo and is connected to it by a causeway.

Skalo Havn, a small and shallow fishing boat harbor, is situated on the S side of Skalo and Dybvig Havn, a small craft harbor, is situated on the SE side of Fejo.

Vesterby Havn, a small harbor, is situated on the W side of Fejo. The entrance, which faces SW, is 25m wide and has a controlling depth of 3.9m. The harbor basin has depths of 1.4 to 3.4m and is used by ferries and pleasure craft.

2.39 Femo (54˚59'N., 11˚32'E.) lies 2.5 miles NE of the E extremity of Fejo. This island is hilly in contrast to the adjacent ones and rises to a height of 22m in its SE part. A prominent church, with a pointed tower, stands on the W side of the island.

Skellerev, a reef with a narrow strip of sand, lies about 1 mile E of the E extremity of the island.

Femo Sund leads SE between Femo and Fejo. There is a controlling depth of 9.1m in the N part of this channel, but it is reduced to 3.7m in the S part lying between the islands. This channel is used only by small craft with local knowledge.

Lilleo (54˚54'N., 11˚29'E.), a small island with several houses, lies 2.3 miles S of the E extremity of Fejo.

Asko (54˚53'N., 11˚29'E.) lies close S of Lilleo and is connected to it by a causeway. This island is flat and a small village stands on its N side. A prominent church is situated close S of the village in the N part of the island. Asko Havn, a small craft harbor, lies close off the SW end of the island and is connected to the shore by a causeway. The entrance is 12m wide and has a controlling depth of 3m.

Lindholm (54˚53'N., 11˚27'E.), a partly wooded and comparatively high islet, lies on a shallow spit extending from the coast of Lolland, 1 mile WSW of Asko.

Vigsnaes (54˚54'N., 11˚39'E.), a low and partially wooded peninsula, forms the NE extremity of Lolland. Vigso, an islet, lies on the coastal bank, close N of the N end of this peninsula. Vigso Skal, a rocky shoal with a least depth of 2.8m, extends about 1 mile NE of Vigso and is marked by a buoy.

Caution.—Several areas lying in the vicinity of Rago and Rago Flak have been designated as Wild Life Reserves. Entry into these areas is subject to numerous restrictions.

A marine farm area, marked by buoys, lies close NE of Rago Flak.

Several submarine cables, which may best be seen on the chart, extend between the offshore islands and the coast of Lolland.

2.40 Staldyb (55˚00'N., 11˚18'E.) is the channel leading in a SSE direction for about 9 miles between the bank fronting Lolland, on the SW side, and the shoals extending NW from Fejo, on the NE side. The fairway passes between Rago and Skalo and is marked by buoys.

Lindholm Dyb (54˚54'N., 11˚25'E.), marked by buoys, is a continuation of Staldyb. This channel leads in a SE direction for about 3.5 miles and passes close SW of Asko.

Bandholm Rende (54˚51'N., 11˚32'E.), a dredged approach channel, leads about 2 miles SE from the inner end of Lindholm Dyb to the outer entrance channel of Bandholm.

Oreby Rende (54˚51'N., 11˚32'E.), a dredged approach channel, leads in a SE direction from Bandholm Rende to Sakskobing.

Depths—Limitations.—The controlling depth through Stakyb and Lindholm Dyb is 9m, but the fairway is very narrow and intricate. The controlling depth through Bandholm Rende is 5.5m and the controlling depth through Oreby Rende is 3m.

Caution.—The banks on either side of Staldyb are steep-to and soundings give little warning of approaching the edges. The positions of the banks are generally indicated by the appearance of a lighter sheen in the water and by ripples along their edges.

2.41 Bandholm (54˚50'N., 11˚30'E.) (World Port Index No. 29670), a small port, serves the city of Maribo, 4 miles S.

Tides—Currents.—Gales from NW can raise the water level by up to 1m and gales from SW can lower it by the same amount.

Depths—Limitations.—The dredged entrance channel leading SSW from Bandholm Rende has a controlling depth of 5.8m. The harbor entrance faces NE and is 55m wide. The two harbor basins provide about 500m of total quayage with depths of 4.4 to 5.8m alongside. Vessels up to 5.1m draft can enter. There are facilities for general cargo and bulk vessels. Vessels up to 120m in length can be accommodated, dependent on their draft.

Aspect.—The entrance channel is indicated by a lighted range. A prominent silo stands on the E side of the harbor. A conspicuous red church, with a thin spire, is situated near the W end of the town.

Pilotage.—Pilotage is not compulsory, but is advised. Pilots are provided by the Danpilot station at Kragenaes and should be requested through the agent at least 4 hours in advance. Pilots can be contacted by VHF and board about 1.5 miles NNE of Kragenaes Havn.

Sakskobing (54˚48'N., 11˚38'E.) (World Port Index No. 29660), a small harbor, is situated at the head of Sakskobing Fjord.

Winds from NW to NE can raise the water level by up to 1m and winds from S to SE can lower it by the same amount. A small river flowing into the head of the harbor can sometimes cause an outgoing current. The range of tide is 0.3m.

The dredged entrance channel has a controlling depth of 3m. The harbor basin has depths of 2 to 3m alongside and is used by coasters and small craft. Vessels up to 82m in length, 12m beam, and 3m draft can be handled.

Pilotage is compulsory for vessels over 100 nrt. Pilots are provided by the Danpilot station at Kragenaes. Vessels generally navigate only during daylight as there are no lighted navigational aids.

Oreby Pier, 30m long, extends from the N shore at the entrance to the fjord. Between this pier and the harbor, vessels of 30 grt and over must not exceed a speed of 4 knots and vessels of less than 30 grt must not exceed a speed of 6 knots.

2.42 Falster (54˚57'N., 11˚48'E.), a large island, lies E of Lolland. Its NW part consists of a low, partly wooded peninsula indented by Valse Vig, a shallow and rock-encumbered bay.

Orehoved (54˚58'N., 11˚50'E.), a salient point on the N side of Falster, is the E entrance point of Valse Vig. Dyrefod, a wooded islet, lies close N of this point.

Vesterskov Flak and Dyrefod Flak, two rocky shoal areas with depths of less than 3m, extend up to about 3 miles W and 2.3 miles NW, respectively, of Orehoved.

The meridian dividing the W and E sections of Smalandsfarvandet passes through Orehoved.

Orehoved Havn (54˚58'N., 11˚51'E.), a small harbor, is located about 1 mile ESE of Orehoved. It consists of a pier, about 200m wide, extending 0.2 mile NNE from the shore. An approach channel, 50m wide, leads to the pier. It has a controlling depth of 7m and is indicated by a lighted range. The pier has depths of 5 to 7m alongside and can handle vessels up to 150m in length and 6.5m draft. Prominent warehouses are situated on the pier. Pilotage is advised for vessels without local knowledge. Pilots can be contacted on VHF channel 16 and are provided by the Vordingborg (Masnedo) station.

A prominent church, with a black spire, stands at Gyldenbjerg, 1 mile S of Orehoved Havn. Another prominent

Table of Contents

church, red with a pointed tower, is situated at Valse, about 3 miles SW of Orehoved Havn.

Directions.—The entrance channels leading from the Store Baelt open into an area with depths of 9 to 29m. From this area, the main transit route through Smalandsfarvandet leads ESE and E, passing between Vejro and Kirkegrund. It then passes S of Knudshoved, N of Orehoved, and continues SE into the E section of Smalandsfarvandet.

2.43 Guldborg Sund (54˚52'N., 11˚45'E.), the passage leading SSE between Lolland and Falster, is used mainly by vessels proceeding through the N approach to Nykobing.

Ice.—Generally, ice appears in the N approach to this passage in early January and remains until early March. The fairway channel is seldom ice-free throughout the winter, but an icebreaker is available.

Tides—Currents.—During settled weather, the tidal currents in the sound change direction regularly and attain rates of 1 to 2 knots. In unsettled weather, especially immediately after the onset of a gale from SE, a N-setting current may run for several days and attain rates up to 4 knots in the narrower parts of the channel.

Depths—Limitations.—The channel is entered about 4.5 miles N of the N end of Vigsnaes and leads in a SE direction between the dangers fronting the NE end of Lolland and the NW end of Falster.

The fairway has a controlling depth of 6.1m as far as Nykobing. Navigation of the passage is allowed only in daylight.

The controlling depth of the S approach to Nykoping, which leads through the sound from Fehmarn Belt (see paragraph 4.1), is only 2.1m.

Aspect.—An outer approach lighted buoy is moored about 2 miles E of the E extremity of Femo and marks the seaward entrance of the channel leading through the sound. The fairway is marked by buoys and, in places, fluorescent beacons.

A prominent church, with a thin spire, stands at Klippinge, 2.6 miles NE of Guldborg Bridge. Another prominent church, with a tower, stands at Brarup, 1.5 miles SSE of Klippinge.

A prominent red church, with a stepped tower, is situated at Majbolle, 2.3 miles SSW of Guldborg Bridge.

Guldborg Bridge (54˚52'N., 11˚45'E.), a road bridge with a double bascule span, crosses the sound at Guldborg, about 4 miles above the mouth. The bascule span is situated between the two central pillars and provides a navigable width of 30m. The bascule span has a vertical clearance of only 4m when closed. The opening through the bridge is lighted on both sides.

From Guldborg Bridge, a narrow, winding channel leads SSE for 7.5 miles to Nykobing.

Nykobing (54˚46'N., 11˚52'E.)

World Port Index No. 29630

2.44 Nykobing is the largest city on Falster. It is a commercial and industrial center and an important railroad junction. The port is situated near the middle of the E side of Guldborg Sund.

Tides—Currents.—The mean range of tide at the port is 0.4m. Gales from NW to NE can raise the water level by up to 1.5m and gales from SE to SW can lower it by as much as 0.8m.

Depths—Limitations.—The harbor consists of a continuous quay, 1,000m long, extending along the E side of the fairway channel and three small basins. The quay has a depth of 6.2m alongside and the basins have depths of 2 to 6.2m alongside.

There are facilities for general cargo, bulk, tanker, and fishing vessels. Vessels up to 5,000 dwt, 129m in length, 20m beam, and 5.8m draft can be accommodated.

Aspect.—A prominent silo and several tanks are situated near the N end of the main quay.

King Frederik IX Bridge spans the sound close S of the harbor and is conspicuous. This road and railway bridge has a single bascule. When raised the bridge has a navigable width of 20m. It has a vertical clearance of only 4m when closed.

Pilotage.—Pilotage is compulsory for tankers, but recommended for vessels without local knowledge. Pilots are provided by the Danpilot station at the port. Vessels should send an ETA and request for pilotage 24 hours, 12 hours, and 4 hours in advance. Pilots can be contacted by VHF and board about 2.3 miles E of the E extremity of Femo, near the outer approach lighted buoy.

Caution.—Several areas within the sound located within about 1 mile of the harbor have been designated Wild Life Reserves and entry is subject to numerous restrictions.

Smalandsfarvandet—East Part

2.45 Oringe (55˚00'N., 11˚55'E.), a small peninsula, is located on the S coast of Sjaelland, 3 miles NE of Orehoved Havn. A conspicuous complex of hospital buildings, surrounded by woods, stands on the E part of this peninsula.

Vordinborg Nordhavn, a small and shallow harbor, is situated on the N side of a small bay lying on the N side of the peninsula. It is used only by small craft, yachts, and fishing boats.

The shallow coastal bank fronting the S side of Slaelland in the vicinity of Oringe extends up to about 1.5 miles seaward.

Masnedo (54˚59'N., 11˚55'E.), a low island, lies close SW of Oringe. A prominent electric power plant stands on the N part of this island. A shoal area, with depths of less than 4m, fronts the W side of this island and extends up to about 0.7 mile seaward.

Masnedo Kalv, a low islet, lies close S of the island. A shoal area, with depths of less than 6m, fronts the NW side of this islet and extends up to about 1 mile seaward.

Ore Light (55˚00'N., 11˚52'E.) is shown from a prominent tower, 13m high, standing on the S shore of Sjaelland, about 1.5 miles W of Oringe.

Valdemars Tower, a conspicuous red building with a pointed roof, is situated in the town of Vordingborg, 1.5 miles E of Ore Light. A prominent church and a water tower stand 0.3 mile WNW and 0.4 mile NE, respectively, of this tower.

Masnedsund (55˚00'N., 11˚54'E.) is the narrow passage leading between the S side of Sjaelland and the N side of Masnedo. This sound, which is about 3 miles long, is marked by buoys and lighted ranges. The E end of the passage leads

ESE between the shallow shoal areas fronting the NE side of Masnedo and the S side of Oringe.

The part of the fairway channel lying W of Masnedsund Bridge has a controlling depth of 6.7m while the part lying E of it has a controlling depth of 7m. Vessels up to 6.5m draft can use this passage.

Tides—Currents.—The tidal currents in the passage change direction regularly, every 6 hours, in settled weather and may attain rates of 3 to 4 knots. During stormy weather, they become irregular and a current may set in the same direction for several consecutive days. Gales from W to NW can cause an E-flowing current and gales from E to SE can cause a W-flowing current. These currents may attain rates up to 5 knots.

Caution.—An overhead cable, with a vertical clearance of 36m, spans the passage, about 0.3 mile NW of Masnedsund Bridge. The three pylons supporting the cable are conspicuous.

Fishing stakes and traps may be moored adjacent to the N side of the fairway in the NW part of Masnedsund from March to December.

2.46 Masnedsund Bridge (55˚00'N., 11˚53'E.), situated 0.9 mile SE of Ore Light, spans Masnedsund and connects the S side of Sjaelland with the N side of Masnedo.

This road and railroad bridge has a single bascule span, which provides a navigable width of 24.8m. Because the bascule span does not raise to a vertical position, the navigable width is reduced to 18.4m at a height of 32.9m.

When the bridge is closed, there is a vertical clearance of 4.8m at its N end and a vertical clearance of 5.4m at its S end. Both sides of the navigable passage are marked by lights.

Pilotage.—Vessels of 1,500 dwt and over intending to pass through Masnedsund Bridge are advised to employ the services of a pilot. Pilots are provided by the Danpilot station at Vordingborg (Masnedo). Pilots can be contacted by VHF and board about 1.6 miles W of Ore Light.

Regulations.—Only one vessel at a time may pass through the bridge and vessels under sail take precedence over power-driven vessels.

Caution.—Submarine cables and a gas pipeline, marked by beacons and notice boards, extend between Sjaelland and the N side of Masnedo, in the vicinity of the bridge. Magnetic anomalies, with deviations up to 70˚ ,have been experienced in the vicinity of the cables.

2.47 Vordingborg Sydhavn (55˚00'N., 11˚54'E.) (World Port Index No. 29560), formerly known as Masnedsund Havn, is situated close E of Masnedsund Bridge, on the S side of Sjaelland. This harbor provides a quay, 460m long, with depths of 6.5 to 7m alongside and a small craft basin. Vessels up to 93m in length, 16m beam, and 6.5m draft can be handled. A number of conspicuous silos stand near the quay.

Masnedovaerkets Havn (55˚00'N., 11˚53'E.), a private harbor, is situated close W of Masnedsund Bridge, on the N side of Masnedo. This facility mainly services the power plant. The harbor provides a turning basin and a quay, 270m long, with a depth of 6.7m alongside. Vessels up to 100m in length, 17m beam, and 6.5m draft can be accommodated.

Masnedo Godningshavn (54˚59'N., 11˚54'E.), formerly known as Masnedo Benzinhavn, is situated near the S extremity of Masnedo. This small harbor consists of a single basin. It provides a tanker berth at the W side with a depth of 5m alongside. Vessels up to 100m in length, 15m beam, and 4m draft can be accommodated.

Caution.—Depths alongside the above facilities can be raised or lowered by strong winds.

Vordjngborg Sydhavn—Masnedsund Bridge

2.48 Storstrom (54˚58'N., 11˚53'E.) is the passage lying between the coastal bank fronting the NW side of Falster and the S side of Masnedo. This passage is about 5 miles long and extends ESE as far as Faro (54˚57'N., 12˚00'E.).

A detached shoal patch lies about 0.9 mile S of the S end of Masnedo, near the center of the passage. It has a depth of 3.6m and is marked by a buoy. Generally, vessels pass on the N side of this danger.

Except for the above patch, the main fairway channel has depths of 7.3 to 23m, the greatest being in the E part.

Gabense Lystbadehavn, a small harbor, lies on the S side of the passage, 0.6 mile ESE of the S end of the Storstrom Bridge. This harbor has a controlling depth of 2.5m and is used only by small craft.

Tides—Currents.—The tidal currents in the passage change direction regularly in settled weather and attain rates of 1 to 2 knots. The flood current sets E and the ebb current sets W. In stormy weather they are irregular and a current may set in one direction for a long period. During these periods the current may attain a rate of 3 to 5 knots. Gales from W to NW can cause an E-flowing current and gales from E to SE can cause a W-flowing current.

Pilotage.—Pilots are provided by the Danpilot station at Vordingborg (Masnedo). Pilots can be contacted by VHF and board southeastbound vessels about 1.6 miles W of Ore Light. Pilots for northwestbound vessels entering this passage from the Baltic Sea are provided by the station at Hesnaes (54˚49'N., 12˚09'E.).

Anchorage.—Anchorage can be taken anywhere in the passage, clear of the submarine cables, cable area, and bridges.

Caution.—A submarine cable area, 1.3 miles wide, extends SW across the passage from the S shore of Masnedo. A submarine cable extends N across the passage from close W of Orehoved Havn to the S side of Sjaelland.

Table of Contents

2.49 Storstrom Bridge (54˚58'N., 11˚53'E.) spans Storstrom and extends SSW between the S extremity of Masnedo and the N coast of Falster. It is a fixed bridge resting on 51 piers, which are numbered 0 to 50 from the N end. The central spans, numbered 21-22, 22-23, and 23-24 have conspicuous arched superstructures.

Span 21-22, the N arch, has a vertical clearance of 25.5m and a navigable width of 95m. It is reserved for northwestbound traffic.

Span 22-23, the central arch, has a vertical clearance of 26m and a navigable width of 125m. It is reserved for southeastbound traffic.

Span 23-24, the S arch, has a vertical clearance of 25.5m and a navigable width of 95m. The remaining spans have a navigable width of 50m with vertical clearances decreasing toward the shores.

At night, the sides of the passages under the N and central arched spans are marked by lights visible to vessels approaching from either direction.

If necessary, because of the height of their masts, northwestbound vessels may pass through the central arched span, but priority must be given to southeastbound vessels.

Caution.—Due to electric cables on the bridge, passage is exceptionally dangerous with aerials exceeding the height of the vertical clearances.

2.50 Faro (54˚57'N., 12˚00'E.), a low island, lies about midway between the S side of Sjaelland and the N side of Falster, 3.5 miles SE of the S end of Masnedo. This island is treeless but a few farms are situated on it.

Bogo (54˚56'N., 12˚03'E.), a hilly island, lies close SE of Faro and is built over at its E end. A prominent gray church, with a square tower, stands on the N part of the island and a conspicuous windmill is situated 0.7 miles S of it.

The NW end of this island is connected to the S side of Faro by a narrow causeway. Barholm, an islet, lies close off the SE end of Bogo. A narrow causeway extends across this islet from the SE extremity of the island and connects with Borgsted, a peninsula located at the SW end of Mon.

Bogo Havn, a small craft harbor, is situated on the S side of the island, about 1 mile W of the SE extremity. It has an entrance, 15m wide, with a controlling depth of 2.5m.

Sjaelland Faro Bridge (54˚58'N., 12˚00'E.), a fixed road bridge, extends NNE from the N end of Faro to the S side of Sjaelland. The spans situated over the fairway channels have a navigable width of 40m between the piers and a vertical clearance of 20m.

Faro Falster Bridge (54˚57'N., 11˚59'E.), a cantilever road bridge, extends SW from the SW side of Faro to the N side of Falster. The span situated over the fairway channel has a navigable width of 260m between the piers and a vertical clearance of 26m.

Caution.—A submarine cable extends NE between the N side Falster and the S side of Sjaelland, about 0.4 mile W of Faro. Another submarine cable extends N between the N side of Falster and the SE end of Bogo.

2.51 Taero (54˚57'N., 12˚05'E.), a low island, is situated 3 miles E of Faro and a hillock, 11m high, rises in its E part. Lilleo, a low islet, lies on a shallow shoal flat, 0.5 mile W of the W end of the island.

Petersvaerft Havn is situated on the S side of Sjaelland, about 1 mile NW of the E extremity of Taero. This small craft harbor consists of a pier, 69m long, with a depth of 1.5m alongside the head and a shallow basin.

Lango (54˚59'N., 12˚07'E.), a small island, is located 1.2 miles NNE of Taero. It lies about 0.5 mile off the S side of Sjaelland to which it is connected by a causeway.

Boren, 33m high, is a prominent hill, which rises on the N side of Mon, 1.5 miles SE of the E end of Lango.

Dronning Alexandrines Bridge (54˚59'N., 12˚10'E.), formerly known as Ulvsund Bridge, is a fixed road bridge situated 1.5 miles NE of Lango. It extends between embankments projecting from the S side of Sjaelland and Kosterland, a peninsula on the N side of Mon.

The central navigational opening can easily be identified by its arched superstructure. This opening has an overall navigable width of 120m between the piers and a width of 80m under the central part of the arch. It provides a vertical clearance of 25m under the central part of the arch, which decreases to 6m alongside the piers.

Regulations.—Only one vessel at a time may pass through the bridge and vessels under sail take precedence over power-driven vessels.

Vessels proceeding W through under the arched opening take precedence over vessels proceeding E.

Caution.—Due to electric cables on the Dronning Alexandrines Bridge, passage under it is exceptionally dangerous with aerials exceeding the height of the vertical clearance.

Submarine cables extends NNW between Taero and the S side of Sjaelland.

2.52 Kalvehave Havn (55˚00'N., 12˚10'E.), a small craft harbor, is situated at the SE extremity of Sjaelland, close E of the Dronning Alexandrines Bridge. The entrance, which faces SE, is 30m wide and has a controlling depth of 2.5m.

A prominent white church, with a square tower, stands at Kalvehave, 0.8 mile W of the harbor.

Stege Bugt (55˚00'N., 12˚14'E.), a large bay, lies NE of Kalvehave Havn and is encumbered by extensive shallow flats.

Lindholm (55˚00'N., 12˚13'E.), a small island, lies near the center of Stege Bugt, 2.3 miles NE of the Dronning Alexandrines Bridge. A conspicuous chimney stands on this low islet. A small craft harbor, which services a veterinary research facility, is situated on the SW side of the island.

Nyord (55˚03'N., 12˚13'E.), a low island, lies on the N side of Stege Bught and is connected by a bridge at its E side to Ulvshale, a peninsula projecting NW from the N side of Mon. A large drying flat extends up to 2 miles NE from the N side of this island.

A small craft harbor, protected by two breakwaters, is situated near the SW end of the island. A conspicuous church, with a pointed spire, stands in the village close N of the harbor and a tall chimney is situated close E of it.

Stege Havn (54˚59'N., 12˚17'E.) (World Port Index No. 29600), a small harbor, is situated at the head of Stege Bugt, about 4 miles E of Kalvehave Havn. It lies at the entrance to Stege Nor, a shallow lake.

Return to paragraph: 1.32

Koster Rende, the main approach channel, leads in an E direction across the shallow flats to the harbor. It is marked by buoys and has a controlling depth of 4.1m.

The outer and inner parts of the harbor are separated by a bascule bridge. A conspicuous chimney stands at a sugar factory close SW of the harbor. A prominent church, with a spire, is situated close NE of the harbor. The outer harbor, which has a depth of 4m, consists of a quay and two small basins. Vessels up to 80m in length and 3.9m draft can be accommodated.

Caution.—Several designated nature reserve areas lie within Stege Bught and in the vicinity of Nyord. Entry into these areas is subject to numerous restrictions.

Submarine cables extend E between Lindholm and the E side of Stege Bugt.

2.53 Faergestrom (54˚59'N., 11˚57'E.), a narrow channel, extends ESE across the shoal bank fronting the S side of Sjaelland. It connects the E end of Masnedsund to the W end of Ny Farvand, about 1.5 miles W of the Sjaelland Faro Bridge. The fairway has depths of 6.2 to 10.2m in mid-channel. A narrow passage branches SE from the junction of Faergestrom and Ny Farvand to connect with Kalvestrom.

Ny Farvand (54˚58'N., 11˚58'E.), a very narrow channel, extends E for about 1.5 miles. It connects the E end of Faergestrom to the W end of Ulvsund, in the vicinity of the Sjaelland Faro Bridge. This channel has a controlling depth of only 4.4m.

Ulvsund (54˚58'N., 12˚09'E.), entered from the E end of Ny Farvand, extends ESE and passes under the Sjaelland Faro Bridge. The channel continues NE and passes between Taero and the S side of Sjaelland and then between the N end of Taero and the S end of Lango. It then leads NE and passes under the Dronning Alexandrines Bridge.

From the above bridge, the channel continues in a N direction along the W side of Stege Bught. It then passes between the W side of Nyord and the Sjaelland coast to connect with the S end of Bogestrom.

Kalvestrom (55˚04'N., 12˚10'E.) leads E from close SE of the S end of Masnedo and has depths up to 11m in places. This narrow channel passes N of Faro and then between Bogo and Taero. It then ends at a shallow bar. This passage has a controlling depth of 2.5m at the W end, 1.5 miles WNW of Faro, and is used only by pleasure craft.

Bogestrom (55˚04'N., 12˚10'E.), a passage leading N and NE, lies in the SW part of Fakse Bugt (see paragraph 1.32). It connects the outer end of Ulvsund to the Baltic Sea. This buoyed passage has a controlling depth of 2.3m and is used only by small craft and pleasure boats. It is subject to silting.

2.54 Sortso Gab (54˚56'N., 12˚00'E.) extends in a SE direction for about 3.5 miles from SW of Faro to the W end of Stubbekobing. This passage connects the E end of Storstrom to the W end of Gronsund. The fairway has depths of 10.9 to 38m, the greatest being in its central and NW parts.

Stubbekobing (54˚53'N., 12˚03'E.) (World Port Index No. 29580), a small harbor, is situated on the N coast of Falster. It consists of a main commercial basin with an entrance, 25m wide. A quay, 100m long, and a ferry berth are situated close W of the main basin and are protected by a detached breakwater. A pleasure craft basin is situated close E of the main basin.

An entrance channel, with a controlling depth of 5m, leads S across the coastal bank to the harbor. The main basin has depths of 2.5 to 5m alongside. Vessels up to 120m in length, 22m beam, and 4.8m draft can be accommodated.

The entrance channel is marked by buoys and indicated by a lighted range. A conspicuous red church, with a red tower, stands in the town, close S of the harbor. A prominent tall silo is situated at the SW end of the harbor.

A directional sector light is shown from a prominent house standing 0.7 mile W of the main harbor basin.

Pilotage is not compulsory, but is advised for vessels without local knowledge. Pilots are provided by the Danpilot station at Vordingborg (Masnedo).

Vessels can anchor, according to draft, off the harbor.

Caution.—Marine farms may be moored along the SW side of Sortso Gab.

A detached shoal patch, with a depth of 3.4m, lies about 0.4 mile NW of the entrance to the main basin and is marked by a buoy.

2.55 Borgsted Light (54˚53'N., 12˚08'E.) is shown from a prominent house, 4m high, standing on the SW side of Mon, about 2.2 miles ENE of Stubbekobing. A conspicuous white church is situated at the head of Fanefjord, 1.5 miles E of the light.

Harbolle Pynt (54˚53'N., 12˚08'E.), at the SW end of Mon, is located 1.8 miles SE of Borgsted Light. A small pier, situated close NW of this point, has a berth at its head, 25m long, with a depth of 3.8m alongside.

Harbolle Pynt Light (54˚53'N., 12˚08'E.) is shown from a prominent framework tower standing 0.6 mile NW of the point.

Harbolle Havn, a small harbor, lies close NW of the light and is protected by breakwaters. It is used only by pleasure craft and fishing boats. The entrance faces SW and has a controlling depth of 3m.

Madses Klint (54˚53'N., 12˚12'E.), located 2.2 miles E of Harbolle Pynt, is formed by a small yellow cliff, 22m high. This point, at the SE end of Mon, forms the SE entrance point of Gronsund.

Skansepynt (54˚53'N., 12˚07'E.), a prominent point at the E side of Falster, is located about 0.5 mile WSW of Harbolle Pynt Light. From this point, the coast extends 3.5 miles SSE to Hestehoved. It is wooded in the S part with some high steep cliffs.

A conspicuous high, white building is situated at Naesgard, about 1.2 miles SSW of Skansepynt. It stands between some woods and is visible from E.

Hestehoved Light (54˚50'N., 12˚10'E.) is shown from a prominent house, 4m high, standing on Hestehoved, the SW entrance point of Gronsund.

2.56 Gronsund (54˚54'N., 12˚05'E.) connects the E end of Sortso Gab to the Baltic Sea. This sound is entered in the vicinity of Stubbekobing and leads in a SE direction between the SW end of Mon and the NE part of Falster. The fairway channel

The coastal banks lying SE of Skansepynt and E of Harbolle Pynt, with depths of less than 4m, extend up to 0.6 mile

Table of Contents

seaward, in places. Stenpladerne, a detached rocky shoal, lies on the W side of the channel, 0.3 mile W of Harbolle Pynt. It has a least depth of 2.8m and is marked by a buoy.

The fairway channel rounds Skansepyn and then passes close off Harbolle Pynt. The W part of the passage has depths of 8 to 25m.

An extensive shallow bank of shifting sand occupies much of the NE part of Gronsund and its outer part is marked by a buoy moored about 2 miles ENE of Hestehoved Light. Tolke Dyb leads ESE from the vicinity of Harbolle Pynt, but the seaward end of this channel is obstructed by a shallow bar.

Nyt Lob and Hestehoved Dyb are dredged channels leading S and SE through the shoals in the SE part of Gronsund. The fairway, which is 80m wide, is marked by buoys and indicated by lighted ranges. The inner entrance lies 0.8 mile SSE of Harbolle Pynt and is marked by a lighted buoy. The outer entrance lies 0.6 mile E of Hestehoved Light and is marked by a lighted buoy, moored 0.4 mile SE of it. This dredged channel has a controlling depth of 5m, but is subject to silting.

Tides—Currents.—The tidal currents in the sound change direction regularly, every 6 hours, in settled weather and attain rates of 1 to 2 knots. In unsettled weather the direction and velocity of the current is governed by the wind. Winds from W to N can cause an E current; winds from E to S can cause a W current. The currents may attain rates of 3 to 4 knots, but in the narrow part of the fairway, off Harbolle Pynt, they may attain rates of 5 to 6 knots.

Directions.—The route through the E part of Smalandsfarvandet is divided into two passages.

The S and main passage leads generally SE through Storstrom, Sortso Gab, and Gronsund into the Baltic Sea. This passage has a controlling depth of 5m (Gronsund).

The N passage leads through Masnedsund, Faergestrom, Ny Farvand, Ulvsund, and Bogestrom. It has a controlling depth of 4.4m at the W end (Ny Farvand) and a controlling depth of 2.3m at the E end (Bogestrom).

The passage through Kalvestrom is navigationaly insignificant.

Caution.—Fishing stakes and traps may be moored adjacent to the S side of the channel close W of Skansepynt.

Gales from NE may cause a heavy swell within Nyt Lob and Hestehoved Dyb.

A submarine cable extends NE from the vicinity of Skansepynt to the SE end of Mon.

Table of Contents